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**Desert**  
MAGAZINE

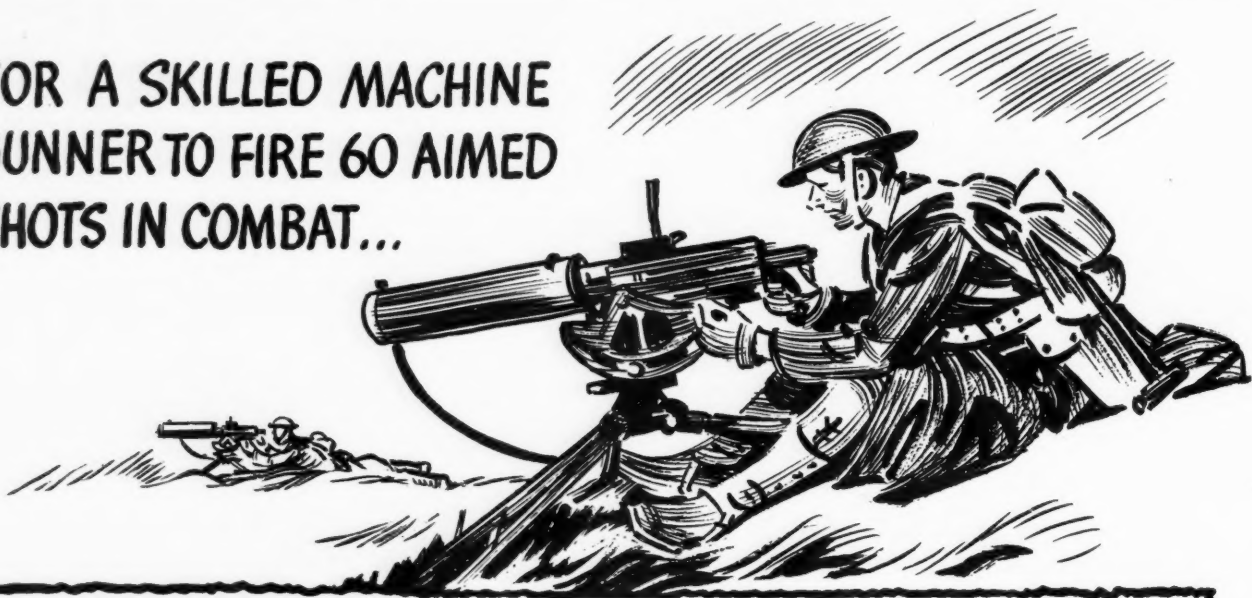


APRIL, 1942

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BEARINGS...)



MAKE YOUR CAR  
LAST LONGER...

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...AT THE SIGN OF  
FINE PRODUCTS



## DESERT Calendar

APRIL 1 National Kennel club show,  
last day, El Paso, Texas.

3 Native wildflower preservation,  
topic of Theodore Payne at Sierra  
club's evening meeting, Boos  
Bros., Los Angeles.

4 Annual White Sands Playday,  
near Alamogordo, New Mexico.

4-5 Mountain Palm Springs, San  
Diego Co., site of Sierra club's  
weekend camp. Near old Butter-  
field stage road, 2 mile hike.  
Take Vallecito stage road at Scis-  
sors Crossing on Highway 78,  
continue 6 miles past Agua  
Caliente.

9-11 American Association for Health,  
Physical Ed. and Recreation,  
Southwest district, in convention  
at Albuquerque, N. M.

9-11 Desert Cavalcade, historical  
pageant and celebration, at Calex-  
ico, California.

11-12 Horse show and hunter trials;  
annual skeet club shoot, Palm  
Springs, California.

11-12 Desert wildflower show at Inyo-  
kern, California. Sponsored by  
Indian Wells Valley chamber of  
commerce.

12 Culmination of Calexico's Caval-  
cade in Mexicali, Baja California,  
with international rodeo, bull-  
fight, barbecue.

13-15 West Texas Parent-Teacher con-  
vention, El Paso.

14-16 Ladies' Invitation golf champion-  
ship, Palm Springs.

17-18 16th annual Maricopa county  
4-H club fair on campus of Ari-  
zona State Teachers college,  
Tempe.

18-19 Sierra club to weekend at Red  
Rock canyon. Mr. and Mrs. Rus-  
sell Hubbard, leaders.

25 Imperial Highway association  
meeting, Calexico.

### THIS MONTH'S COVER . . .

The white blanket worn by this Taos Indian contrasts sharply with the brown adobe walls of the ancient pueblo, located in northern New Mexico. Taos Indians wear white blankets in summer and red and blue blankets in winter. Silhouetted against the sky on tops of the pueblos at sundown they make an unforgettable picture.



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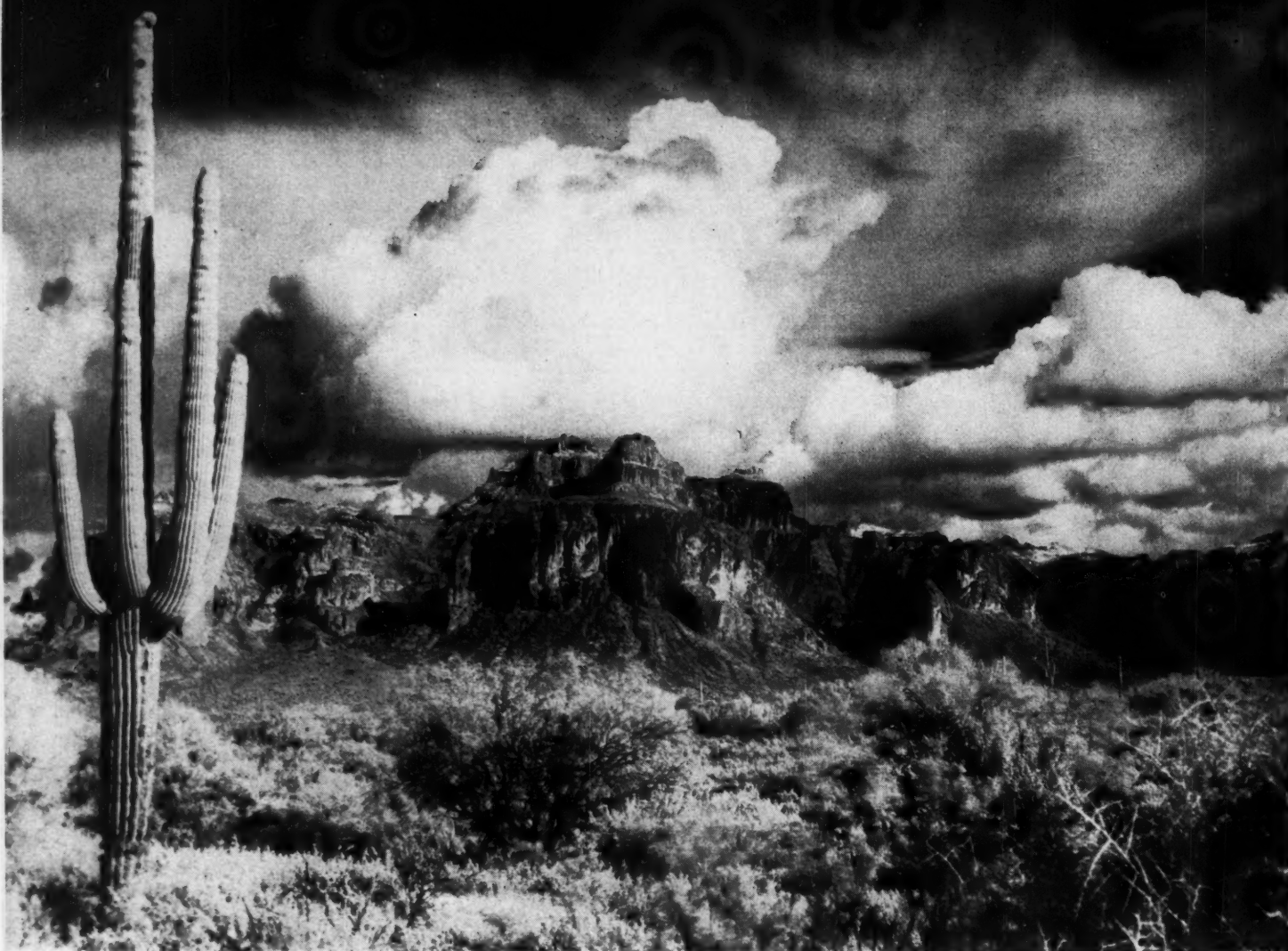
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## *Superstition Mountain*

By EDMOND READ

Glendale, California

This view of the picturesque Arizona mountain, site of the fabled Lost Dutchman mine, is winner of the first prize in Desert Magazine's February photographic contest. Taken with a Speed Graphic camera, 4x5, 13.5 cm. Carl Zeiss Tessar lens. Eastman infrared cut film used with a Wratten a-25 red filter. F32 at 2 sec.

## *A Couple of Kids*

By WILLARD LUCE

Blanding, Utah

Winner of second prize is this informal study, taken with a National Graflex camera, 1/50 sec. f8. Panatomic X film.

## *Special Merit*

The following photos were judged to have special merit:

"Mojave Fantasy," by Roy Miller, Los Angeles, California.

"Praying Mantis," by Donald V. Mabbitt, Indio, California.

"Death Valley Water Hole," by D. C. Morgenson, Stockton, California.





Recent picture of Dr. Frederick Webb Hodge. Photograph by White Studios.

The Zuñi Indians call him Teluli, meaning "Dig your cellar," but to students of America's prehistoric Indian cultures Dr. Frederick Webb Hodge is a man who probably knows more of the answers than any living scientist. For 57 years he has been delving into ancient ruins and piecing together the story told by the artifacts found in these ruins. Today at 78, Dr. Hodge is director of Southwest museum in Los Angeles where he is helping this generation of Americans understand and profit by the experiences of their geographic ancestors.



## *He Found Six of the Fabled "Seven Cities of Cibola"*

By HOPE GILBERT

ON THE floor of the desert plain that surrounds the precipitous walls of the Enchanted Mesa in New Mexico a strange scene was enacted in July, 1897. At the foot of the sandstone cliffs men were tinkering with an instrument that seemed oddly out of place in this setting.

Suddenly there was an explosive report. A rope, propelled by a Lyle gun, shot high into the air and over the 430-foot mesa. Then into the bo'sun's chair stepped a man of professional mien, and the signal to start hoisting was given.

Could the spirits of long-ago dwellers of Katzimo have witnessed what followed they would have been startled indeed to see a man swinging out over space and ascending their lofty stronghold sitting down.

According to Acoma tradition the Enchanted Mesa, or Katzimo as the Indians called it, had once been the home of their ancestors. Their legends told of a sudden storm that had destroyed the rocky trail to the summit, leaving some of the old people of the tribe stranded at the top, while remaining Indians who had been working in the fields below had to seek a new home elsewhere.

Charles F. Lummis, editor of *The Land of Sunshine*, the "Desert Magazine" of the 'nineties, had been telling the world about this Acoma legend. Lummis believed there was a basis of truth in the story.

In the archaeological classrooms of some of the eastern universities, however, the story was regarded merely as one of Lummis' "tall tales." Professor William

Libbey of Princeton was particularly caustic in his ridicule. With the avowed purpose of "disenchanted" the Enchanted Mesa, late in July, 1897, he traveled to New Mexico with a group of assistants and elaborate equipment borrowed from the federal life saving service.

After four days of maneuvering, the life line was shot and the doughty professor was hoisted aloft. However, when he stepped from his bo'sun's chair he found that access to the main section of the mesa top was cut off by a crevasse. He failed to discover an easy passage that exists between the two sectors, and sent word to the ground crew to hoist a ladder. Three fruitless hours were lost while he awaited the arrival of the ladder, and with little time remaining before darkness he made a cursory examination of the main mesa surface. He found nothing that in his

opinion constituted evidence of human habitation.

That was the extent of his investigation. His subsequent articles ridiculing Lumis' account of *Mesa Encantada* were widely publicized and appeared in such magazines as Harper's Weekly.

In the eyes of many Easterners the Katzimo tradition had been thoroughly discredited. Then, fortunately for Southwestern archaeology, an able champion accepted the challenge. Frederick Webb Hodge, young associate of the Bureau of American Ethnology, was at that moment engaged in archaeological work in western New Mexico. For some years he had intended making an ascent of the Enchanted Mesa. In 1895, he had made an attempt without equipment but was balked at a point 60 feet from the top.

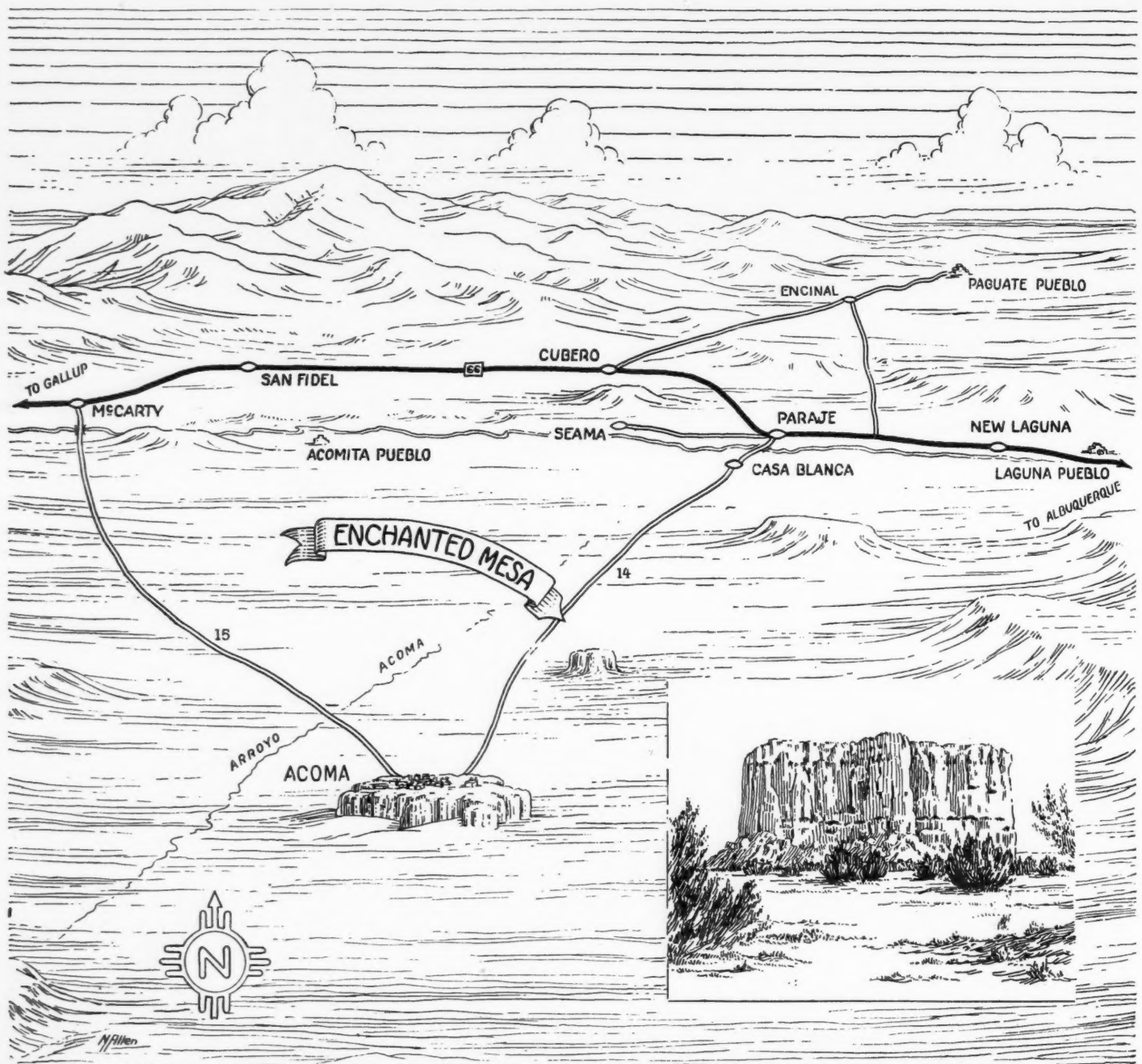
Above this point great slabs of rock had been sheared off, giving credence to the story that the rock trail had been destroyed and that the old people stranded there had died of starvation.

After learning of Libbey's unscientific investigation, Frederick Hodge got in touch with Washington headquarters, assembled equipment, and proceeded to Laguna where on September 1, 1897 he met his small party of interested assistants. From Laguna, Hodge and his three companions, George H. Pradt, United States deputy surveyor of 30 years' standing, H. C. Hayt of Chicago, and A. C. Vroman, Pasadena photographer, were driven in wagons by two Laguna Indians to Acoma, 15 miles distant. September 2 they spent in the "Sky City" witnessing the Fiesta de San Esteván. The Acoma ceremony to the

rain gods was so effective that a driving downpour broke up the dance. The morning of the 3rd was clear, so Hodge and his party rose at dawn to make the three-mile drive across the sandy plain to Katzimo.

They pitched camp in a small grove of junipers near the southwest corner of the mesa, at the base of the cleft up which had once led the original Indian trail. According to Acoma tradition no Indian had set foot on the mesa top since that trail's destruction.

As the four men stood gazing up the dizzy height of the sheer cliff Hodge remarked, "There's a sporting chance that the evidence we seek may have survived through the centuries." In a few hours the explorers would know the answer. Upon the success of their venture depended the vindication of a legend.







*Camp at the foot of the Enchanted Mesa in September, 1897. Left to right: Major Geo. H. Pradt, Laguna Indian, A. C. Vroman, F. W. Hodge, H. C. Hayt. Route to the top was up through the gap in the cliff walls in the background.*

The equipment provided by Hodge consisted of an extension ladder in six 6-foot sections, 300 feet of  $\frac{1}{2}$ -inch rope, a polepick, and drills and bolts, the latter two items proving unnecessary. The talus at the southwestern cleft extended about half way up the cliff. Then began the arduous climb with heavy surveying and photographic equipment. Up the face of several steep pitches hand and toe holes and rudely pecked notches into which the rungs of a trail ladder had once been set were still visible. Great blocks of stone had fallen away so recently that their edges were not yet rounded by erosion. Sixty feet from the summit, at the base of a vertical wall of smooth rock which was the highest point reached by Hodge two years earlier, they found evidence that an Indian devotee, with an offering apparently intended as a sacrifice to be placed on top, had been stopped at this same ledge only a short time before. Beneath the edge of a boulder they found a prayer

stick and fragments of a modern Acoma pot. Nearby were four freshly pointed oak sticks, about  $2\frac{1}{2}$  feet long, which had been discarded after an unsuccessful attempt to fit them into the badly eroded notches.

Selecting the middle of the eastern face of the chimney-like cleft as the least hazardous Hodge and his companions now joined and raised the ladder section by section. Up this dizzy, swaying ladder they made their way. In a little less than two hours after leaving their camp below they stepped upon the top.

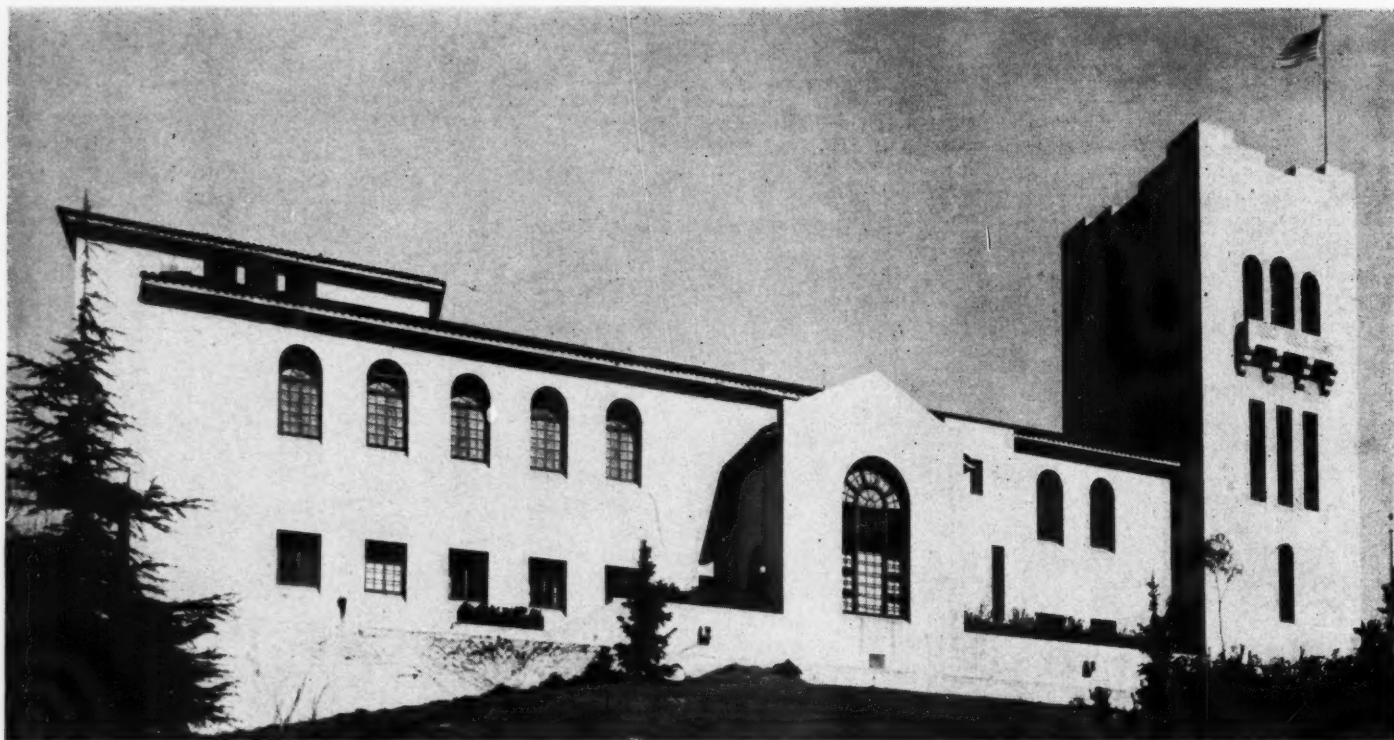
"The view from the summit of Kat-zímo," described Dr. Hodge, "was sublime. The brilliant coloring of distant mesas and cloud-festooned sky after the recent storm was truly breath-taking. Our worst fears, however, appeared to be realized. How, in this exposed position, could the relics of a people have survived the ravages of centuries?"

"We found the top, which is roughly

2500 feet long, to be almost completely denuded of soil. Great cedars which had once thriven there were now gaunt and dying from lack of earth. The deluge of the day before had swept the surface clean. Hardly a puddle of water remained. The dwellings which long ago graced the summit had of course completely disintegrated and been washed over onto the talus.

"Then suddenly, a few moments after our arrival, there was a wild whoop as Major Pradt waved aloft a shard of plain grey ware of ancient type. Enthusiastically we set out with renewed hope to search the surface for further evidence. Presently we were rewarded by finding on the edge of the eastern cliff wall a rude stone monument which unquestionably was the work of human hands. Professor Libbey had disposed of this monument as a 'freak of erosion.'"

That evening for the first time since the days of the ancients a fire blazed upward from the mesa top as the explorers pre-



*Southwest Museum in Highland Park, Los Angeles. Photo by White Studios.*

pared to spend the chill night in that eerie stronghold of a once happy and secure people. The next morning three Acoma elders suddenly appeared on top determined to make the white strangers descend. Their attitude was distinctly hostile. The two Laguna Indian helpers who had remained in camp below reported that the Acomas told them they would remove the ladders if the visitors refused to come down. However, when Hodge convinced them that relics of their ancestors had been found the hostile Indians became genuinely interested and eagerly sought specimens of their own. One of the three, a medicine man, found a bleached axe-head which he refused to sell for any price, carrying it back with him to the Sky City for future ceremonial purposes.

Hodge's party descended at noon September 4. After 20 hours spent on the summit they possessed conclusive evidence of human occupation. In addition to the stone monument, such artifacts as arrowheads, stone axes, shell beads, ancient potsherds, some with a vitreous glaze, etc., were found both on the summit and in much greater profusion in the debris washed or thrown over onto the talus. The Acoma legend had been vindicated. The complete story by Dr. Hodge, illustrated by A. C. Vroman, appeared in the October, 1897, issue of the *National Geographic*.

Forty-three years after this Enchanted Mesa adventure I spent a delightful afternoon with Dr. Hodge enjoying his reminiscences of personalities and "archaeologizing" in the Southwest. Despite the fact it was the hottest day of the Los Angeles season we were comfortably cool

in his office at the Southwest museum built high on a hill overlooking the Arroyo Seco. Although Dr. Hodge has estimated that it would take him 225 years to complete the archaeological and historical projects he has in mind he very graciously gave me of his time.

Frederick Webb Hodge's interest in Indians goes back to his childhood. He is one of those most fortunate of men who having discovered a ruling interest in his early youth has been able to follow that bent through a long and productive career. An ethnologist of international note he has played a significant role in establishing the Southwest as an important center for the study of our cultural past.

Fate dealt a kind hand when seven-year-old Frederick's parents migrated with him from Plymouth, England, and settled in Washington, D. C. There he formed many contacts which were to determine his future career. Small Frederick's fascination for Indian cultures dates from the discovery of his first Indian artifact, an axe-like weapon found near the banks of the Potomac. With this find the young lad began a systematic collection of all the Indian artifacts he could lay his hands on. He haunted the United States National Museum in his out-of-school hours. He read of Schliemann's excavations at Troy and dreamed of himself digging up a lost city.

His imagination also was fired by the exploits of Major John Wesley Powell, head of the U. S. Geological Survey, who some years earlier had made his historic descent of the Colorado river. The result was that after several years of study in the Corcoran Scientific School of Columbian

(now George Washington) University, young Hodge secured a position with the U. S. Geological Survey.

Meantime he continued studying reconnaissance reports and surveys of the Southwest made by William H. Holmes and Major Powell, the two geologists whose surveys laid the foundation for sound archaeological research in this region.

"Until the middle '80s," Dr. Hodge told me, "no large-scale scientific excavation of archaeological sites had been conducted in the Southwest. Frank H. Cushing was the first to conduct the systematic excavation of a pueblo, and I was fortunate enough to accompany him on his first expedition, in 1886."

Thus Fortune once again played into Frederick Hodge's hands. But it was not mere luck which secured for the 21-year-old youth the coveted position as secretary of the Hemenway Southwestern Archaeological expedition, for young as he was he had proved his capabilities in his two years with the Geological Survey. He was fortunate to be introduced to the art of digging by a man like Frank Cushing. Cushing was a genius in his line and a very exacting worker. He had spent the previous five years living with the Zuñis, absorbing their life and customs and perfecting the technique of ethnological research. His collections of Zuñi folk tales are classics.

The Hemenway expedition was financed by Mrs. Mary H. Hemenway, a wealthy Boston woman with an enthusiasm for American antiquities. The season of 1886 was spent excavating pueblo ruins in the Salt River valley of southern



Arizona. In 1887 their camp was moved by mule team to Zuñi where excavations were begun at Hálona, one of the famed Seven Cities of Cibola. After a few weeks, however, Cushing was called back to Washington. Due to illness Cushing was unable to return to Zuñi, and Frederick Webb Hodge, at 22, became a full-fledged archaeologist in charge of the Hemenway expedition.

The Seven Cities of Cibola were magical words to the conquistadores and to young Hodge alike. To the Spaniards they spelled golden treasure. To the young archaeologist they spelled treasure far surpassing the glitter of gold—they held within their crumbled walls the enthralling story of a people.

Hodge's excavations at Hálona and Héshotaúthla, in 1888 and 1889, were necessarily incomplete. Upon his return to Washington in 1889, and his entrance upon new duties in the Bureau of American Ethnology he determined that some day he would return to the Seven Cities and delve more deeply into their secrets. Almost 30 years were to pass before circumstances permitted him to fulfill this dream.

To the general public Frederick W. Hodge is probably best known for his monumental *Handbook of the American Indians North of Mexico*, published in two great volumes by the Bureau of American Ethnology, in 1907 and 1910. The excellence of this work proved Hodge to be a meticulous and able scholar. But he is much more than a mere armchair ethnologist.

In 1917 the dream of Frederick Webb Hodge came true. In that year he secured financial backing under the joint sponsorship of the Bureau of Ethnology and the Museum of the American Indian, Heye Foundation, to excavate Hawikuh, most important of the fabled cities of Cibola. Resigning from the Ethnological Bureau the following year in order to have more time for field work he continued excavations for five more seasons, under the Heye Foundation, with which organization he was to be associated until 1931.

"Hawikuh, which is situated 15 miles southwest of the modern pueblo of Zuñi, holds a unique position among ruins of the Southwest," Dr. Hodge told me. "The most southwesterly of the Cibolan towns it was at this stone and adobe village that the unhappy foundation of Spanish and Pueblo relations was laid. Here it was that Estevanico, negro guide of Fray Marcos de Niza, was killed in 1539. This was the walled city whose glorified description by Fray Marcos fired the imagination of New Spain's treasure seekers. Here Coronado on his ill-fated expedition of 1540 met disillusionment when his vision of a golden city vanished before the reality of a mud village. Here in the first battle between Pueblos and Spaniards the warriors of Hawikuh were forced to concede victory



*Hodge party ascending Enchanted Mesa September 3, 1897. Photograph by A. C. Vroman, member of the party.*

to the white men who fought with fire." "Were there actually seven Cibolan cities?" I asked.

"No," replied Dr. Hodge, "there were in fact only six, of which Hawikuh was one of the two largest."

"Fray Marcos reported that Hawikuh, which he claimed to have seen from a distance, was as large as the City of Mexico. Was there any basis for this statement?" I wanted to know.

"That was a fantastic exaggeration. Hawikuh, as described by later, more reli-

able Spanish reports, consisted of about 200 houses terraced in three and four stories. Its inhabitants in 1540 numbered some 900 persons."

In answer to my query about the number of centuries Hawikuh was occupied, Dr. Hodge replied, "A study of the tree-rings in the roof beams of a square kiva at Hawikuh reveals that the town was built as early as 1250 A. D. It was occupied continuously until 1672 when raiding Apaches burned it. The great Franciscan mission, the first one built among the

Zuñis, was destroyed at this time. Partially reoccupied after this disaster the town was finally abandoned during the rebellion of 1680."

An interesting sidelight on Hawikuh's long period of occupancy is shown by the numerous times the house walls were replastered. Thirty to forty coatings were common and in one room Dr. Hodge counted 63 distinct coats.

The excavation site of Hawikuh, including scattered buildings and cemeteries, Dr. Hodge estimated to be five acres. The masonry was decidedly inferior to that of the ruins of Chaco canyon. The pottery of Hawikuh, however, covered a very wide range of form and design and proved invaluable in establishing a chronology of Pueblo pottery types. Pieces of turquoise mosaic were found here and one of the very few terracotta images found in the Southwest was uncovered at Hawikuh.

To his many Zuñi friends Dr. Hodge is known as Teluli (pronounced Tay-loo-lee) or "Dig your cellar." The workmen at Hawikuh made up this ditty which they always sang on pay day:

"Oh, Teluli,  
Give me some monee,  
I work for you, I sing for you-oo!"

"The Zuñis are a fine people, faithful and efficient," Dr. Hodge told me. "In the early stages of excavation they were afraid of the skeletons. But as they discovered that contact with the bones produced no dire results they became excellent helpers."

The final season's work at Hawikuh was climaxed by an amusing and colorful event. Hodge and his Zuñi friends had decided to have a celebration. The Indians were to provide the dance and Hodge the food.

"Aware of the flat state of my purse at the end of the summer," Dr. Hodge recounted, "I warned my workmen not to advertise the event too widely. As the day dawned and wagon after wagon began arriving, my hope of a small party was completely dashed. The grapevine telegraph had done a thorough job. Eighty wagonloads of Indians came!"

To feed this hungry crowd Dr. Hodge had to provide for the slaughter of many sheep as well as procure several barrels of flour and a wagonload of watermelons. Then as a final touch to the day's excitement the fireworks caused a stampede.

In his capacity as director of the Southwest Museum in Los Angeles for the past decade Dr. Hodge has further proved his many sided abilities. There is nothing of the stuffy scientist about this man. To his interest in ethnology and history is coupled a keen interest in people and present-day problems. A pioneer in American archaeology he has lived to see his countrymen's attitude change from indifference to pride in the cultural heritage of the great Southwest.

## TRUE OR FALSE

Next best thing to a trip out on the desert is an hour with Desert Magazine's monthly True or False quiz. It will take you to many interesting places in the Southwest, introduce you to the history, geography, mineralogy, botany and other interesting phases of desert life and lore. Of course few persons know the answers to all these questions—in fact, if you score correctly on 10 of them you have more than an average knowledge of the desert region. But whether you score high or low, you gain some new information about this fascinating region. Only the seasoned desert rats can qualify with 15 correct answers, and a higher score than that gives you some kind of a super-rating. The answers are on page 40.

- 1—The watershed of the Colorado river includes a portion of Wyoming.  
True..... False.....
- 2—A rattlesnake will not crawl over a horsehair riata. True..... False.....
- 3—Juan Bautista de Anza was the first human being known to have crossed the Colorado desert of Southern California. True..... False.....
- 4—Sands in the White Sands national monument in New Mexico are composed mostly of quartz. True..... False.....
- 5—The mescal plant belongs to the family of agaves. True..... False.....
- 6—Date palms were growing in the great American desert when the white men first came to this region. True..... False.....
- 7—Sunset Crater national monument is near the base of San Francisco peaks.  
True..... False.....
- 8—Elephant trees are found growing wild in Arizona. True..... False.....
- 9—Frank Dellenbaugh, who accompanied Powell on his second Colorado river expedition, wrote "The Romance of the Colorado."  
True..... False.....
- 10—Hovenweep national monument is in Utah. True..... False.....
- 11—Shivwits is the name of one of the Indian pueblos in New Mexico.  
True..... False.....
- 12—U. S. park service maintains its headquarters for the Boulder dam recreational area at Las Vegas, Nevada. True..... False.....
- 13—Desert mistletoe often grows on the Joshua tree. True..... False.....
- 14—Chief mineral product of the mines at Morenci, Arizona, is copper.  
True..... False.....
- 15—Katchinas are made by the Navajo Indians. True..... False.....
- 16—Below Boulder dam, the Colorado river is spanned by three railroad bridges and four highway bridges. True..... False.....
- 17—Encelia, also known as brittle bush or incense bush, is a desert perennial.  
True..... False.....
- 18—The black mineral which commonly occurs in granite is tourmaline.  
True..... False.....
- 19—Elephant Butte dam is in the Rio Grande river. True..... False.....
- 20—The Santa Fe trail was in use before the Butterfield stage line was established.  
True..... False.....



John Hilton went out looking for limonite cubes, and as usually happens when John goes on a field trip, he found some very interesting specimens. But they were not limonite. In his quest for the cubes he arrived unexpectedly in a paradise for quartz crystal hunters. Here is the story of a collector's hunting ground that will never be exhausted because most of the gem material is found beneath the surface.

## Bee Cave Lined With Crystals

By JOHN W. HILTON

**O**N MY desert field trips I almost invariably come upon my best finds when I am seeking something else. My last excursion was no exception.

I went into the Cave creek area in western Arizona seeking a deposit of limonite alterations after pyrite. I knew there were quartz crystals in that general region because I had seen some fine specimens at the home of a friend in Quartzsite. But I had never taken the trouble to locate them.

There really were two objectives in mind when I arranged this trip in quest of the limonite deposits. I wanted to map the field and tell Desert Magazine readers about it. And then I wanted to initiate a couple of novices into the rockhound fraternity. It is sometimes more interesting to observe the reactions of persons who have an intelligent curiosity and no knowledge of mineralogy, on their first trip to a mineral field, than to watch the antics of a seasoned collector.

"Barney" Barnes and I were the veterans on this trip. Our "tenderfoot" companions were Russell Nicoll of the Valerie Jean date shop, and Harold Haas of Hotel Indio. It really isn't fair to call them tenderfeet because Russell has spent most of his life in the Coachella valley of California where thousands of motorists have stopped at his picturesque wayside stand for a date milk shake or a box of Coachella valley's prime dates, and Harold has pioneered with a dog team on the Canadian frontier.

But neither of them had ever collected minerals, and since they had often expressed a desire to know the how and why of a rocknut, I decided this trip would be a fine opportunity to give them their initiation.

The Quartzsite limonite cubes, pseudomorphs after iron pyrites, were first brought to my attention by a prospector who called at my shop with a bag of them. Barney was on duty at the time. Barney is comparatively new to the desert, but he knows rocks and overlooks no opportunity to go out in the field looking for specimens. He thought it would be a fine idea to locate the field where these cubes were found, and pass the information along to Desert Magazine collectors.

The prospector had given us directions for reaching the limonite area.

We started early in the evening in Russell's station wagon. Our plan was to drive 120 miles to the approximate location, and make camp for the night.



*Wild bees have selected one of the rock crevasses in the crystal field for their home—and here is their comb. John Hilton reported that he saw sparkling quartz crystals in the dark background.*

We stopped for a few minutes at Desert Center. Desert Steve Ragsdale was away from home, but Mrs. Ragsdale extended a hospitable greeting. Her eyes lighted up when we told her where we were going. She is a rockhound too, and would rather be out in the Chuckawallas picking up geodes than ringing the cash register at the Desert Center hostelry.

We were continuing our journey along Highway 60 toward Blythe and the Colorado river watching the cloud patterns cast by the moon on the desert floor when suddenly the whole landscape lighted with a brilliant glow like the light of a welder's arc.

This was the evening of January 25 and as we looked toward the sky a giant meteor sailed majestically from the north. It was so bright as to dazzle the eyes and a tail of phosphorescing gasses strung out behind it like a comet.

The most impressive fact which remains in my memory of this meteor was the unearthly quality of the reflected light on the desert hills. It was like something I had never seen before—and may never see again. As the great illuminated projectile passed overhead it appeared to be losing its lateral speed and falling in an arc toward the ground.

As it approached the earth somewhere to the south of us it broke into a gigantic sunburst followed by a descending shower of red sparks that appeared to be sizable fragments falling to the horizon. We had a grandstand seat for one of the most



*Harold Haas (left) and Russell Nicoll comparing specimens after a day in the quartz crystal field.*

amazing spectacles seen on the desert in many a day.

The guard at the Blythe-Ehrenberg bridge was polite but firm. "Turn on your dome lights," he ordered, "roll up all the windows and do not travel over 20 miles an hour on the bridge." Uncle Sam is taking no chances with his key transportation lines, even on the desert.

I thought I recognized the inspector on duty on the Arizona side, but it was not until we asked about the road to Cave creek that I identified him as Ernest Hall, brother of Dick Wick Hall, who, years ago brought fame to Salome and the "frog that never learned to swim." Ernest told us frankly he was not sure about the Cave creek turnoff, but that it was somewhere between seven and ten miles south of Quartzsite on the Yuma road.

We camped that night on the great desert plain three miles south of Quartzsite and again were reminded that the federal government is very much alert these days. We built a rather large fire near a group of giant saguaro cacti. I wanted to experiment with some campfire photography. We had no more than rolled out our sleeping bags when a patrol car drove up and two federal officers approached us. They were checking up to be sure we were not lighting signal fires for aircraft.

They remained a few minutes to have a cup of coffee with us. They were clean-cut intelligent young officers, and it gives one a feeling of confidence to know they merely are one unit in a great nationwide command that is constantly on duty, even in the remote sectors of the desert, to protect America.

The next morning we were treated to

one of those golden sunrises typical of the Arizona hills. Stately saguaro and rugged crags made a gorgeous silhouette against the glow of the rising sun.

We found the turnoff toward Cave creek nine miles south of Quartzsite. A road sign gives the mileage at this point.

Our road from that junction was an unimproved desert trail, passable but slow. Soon we had covered the distance mentioned by the prospector, but the landmarks did not fit the description he had given. There is an old adage on the desert—you cannot always depend on a prospector's miles. They do not always carry

speedometers that work, and even if they did, miles are not too important to a man of the hills. Roads and trails are relative things, and the old Indian method of calculating distance by the progress of the sun is still the rule for some of the old-timers.

We left the car to explore on our left, to ascertain if we were in the sort of country that would produce the minerals we were seeking.

We crossed an arroyo and had hardly started our climb when we began picking up fragments of quartz crystals. Russell Nicoll found a perfect six-sided prism about an inch and a half long highly polished and clear as water. Harold Haas could hardly believe that such a perfect thing could be found at random on a desert hill. As we approached the crest of the hill the crystals became more abundant. We could see they were weathering out of a dark ledge that formed the top of the hill.

We never found the limonite cubes. But it soon was evident we were in a widespread field of crystal quartz. At one place they seemed to be coming out of a clay-filled pocket on top of the ledge. I gave Harold a prospecting hammer and set him digging. Soon he was pulling crystals out of the hole and wiping the clay from their brilliant surfaces.

This crystal-carrying ledge continued for several hundred yards, and beyond it was another that also produced fine specimens. With a little digging, visitors in this area should never run out of good samples as great quantities of them are beneath the surface, and they are finer than those on top of the ground.

Later when I returned Harold was surrounded by a pile of freshly turned clay



*General view of the terrain where the quartz crystals are found. They occur mostly along quartz seams on the low hills. While the field has not been fully explored, it is believed they extend over an area of several square miles.*



and in his hat were several desirable crystals. He said the big thrill was in the fact that his were the first human eyes to see these prisms since their creation at some distant time in geological history.

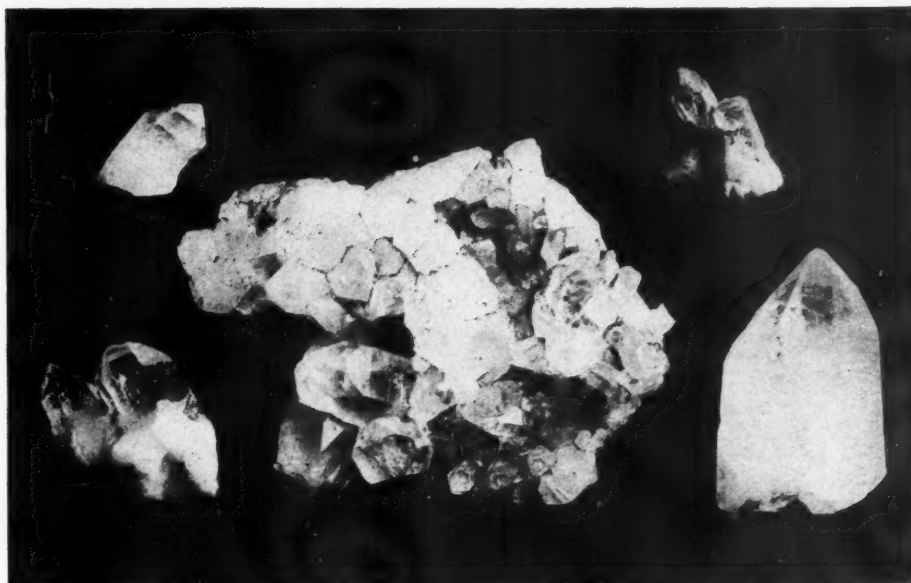
Russell had also found a deposit and was pulling some well-formed specimens from his excavation.

I am afraid I have started a couple of new rockhounds on the business of pawing and searching the earth for its mineral treasures. Anyway, before the trip was over, they were asking me what books they should read to increase their knowledge, and how a prospector's hammer and glass could be obtained. These are the infallible symptoms of rock fever—for which there is no cure.

This is an interesting field, and covers so wide an area I am looking forward to the opportunity for exploring it further. The specimens vary in different ledges and pockets. Some of the pockets are lined with small crystals. Others are clay-filled and contain loose crystals. Both kinds need tools to be properly opened.

The crystals range from clear and colorless, through snowy white to light yellow bordering on citrine and bluish green due to inclusion of tiny particles, possibly mica. Some of the samples contain fine snow phantoms in glass clear tips. Others have various mineral inclusions which I have not yet had time to identify.

One such inclusion is a cluster of metallic rhombic crystals about an eighth of an inch across imbedded in clear crystal. I could see the pocket from which it had weathered out but there was a very good reason why I did not give it a close inspection. The pocket was filled with thousands of cholla cactus joints. How the



*Crystals picked up in the Cave Creek field near Quartzsite. Often they occur in clusters lining the sides of crevices.*

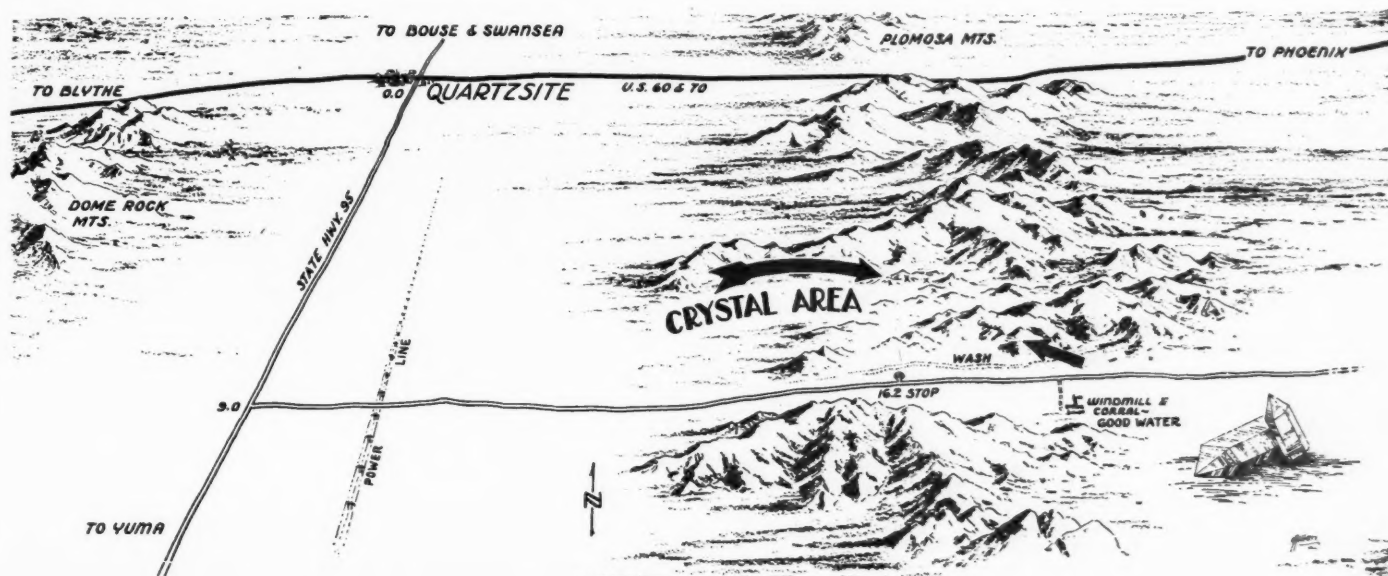
packrats are able to gather these and transport them to their nests is a mystery to me—and still more puzzling is the way the rodents dive through them without apparent harm to themselves. Of one thing I am certain, this cactus barrier is effective in keeping out coyotes and prospectors like myself.

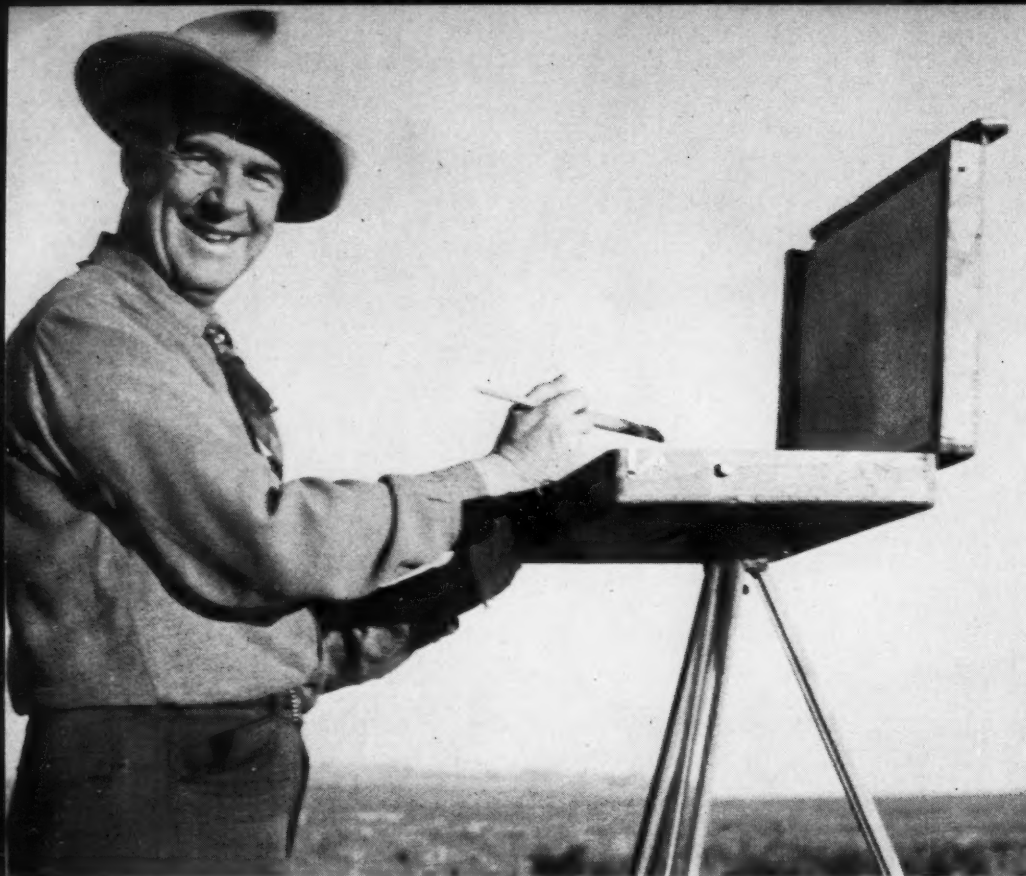
Another pocket I found was also well guarded. A large colony of wild bees had appropriated it as their home. I could see far back in the crystal-lined cavity where the little insects were at work on their delicate comb. It was hard to decide which was more beautiful, the honeycomb or the crystals that surrounded it. Not caring to spoil the beauty of this sparkling beehive I left the pocket as it was. However, just

to keep the records straight I will admit that I have no great fondness for angry bees. I wouldn't have disturbed them even if the crystals had been amethyst instead of white quartz.

We were reluctant to leave this interesting area. For miles in every direction I could see hills that were just begging to be explored. I want to go back there again and make another search for those limonite cubes, and for other stones said to be found in the Quartzsite region.

And as for Russell and Harold, I haven't any doubt that before many months the date shop and the hotel will be so cluttered up with rocks that customers will think they are in a mineral museum.





*Clyde Forsythe is both artist and humorist.*

Three years ago John Hilton promised *Desert Magazine* he would write a story about Clyde Forsythe, the artist. It wasn't an easy assignment because Forsythe always changes the subject when reporters begin asking personal questions. But John persisted. He not only got the information he was seeking, but he maneuvered the artist into writing part of the manuscript himself—although Forsythe will not know it until he receives a copy of this issue of *Desert Magazine*.

## *He Paints the Ghost Towns*

By JOHN HILTON  
Photographs by Ted Slocum

A TALL middle aged man puttered around a campfire near his station wagon. The bright new car looked a little out of place against the rickety old ghost town on the Nevada desert, but the man was the sort who would seem out of place neither in a ghost town nor in a Knob Hill mansion.

The lone resident of the old mining

*This Forsythe painting of Will Rogers on his roping pony "Soapsuds" was displayed at the San Francisco fair in 1940. It was reproduced in color with Mrs. Rogers' story of her husband's life, published by Saturdaypost in 1940.*







*Clyde Forsythe's "Old Burro Man."*

camp sauntered over to investigate the newcomer. He had lived so long with the ghosts and the memories of better days that a real flesh and blood visitor seemed something of a novelty.

"May I ask your name, stranger, and where yuh from?" asked the old-timer with a bluntness that was not unfriendly.

"I am Clyde Forsythe," answered the visitor as he extended his hand. "I thought I would camp here awhile and paint the town."

"Sounds like a good idea," said the old man, "but you came about 30 years too late. We used t' paint 'er on a Saturday night." Then he launched into one of the long and colorful tales of the camp before the "mines went bust"—and thereby added another chapter to the collection of stories Clyde Forsythe cherishes—the history of the ghost towns and lost mines of the desert.

Clyde likes to paint the tumbled-down old mining camps—but not just in the manner suggested by the old prospector. The artist has discovered that these deserted relics are rich in human interest. They contain history and romance against a backdrop of magnificent scenery. It is truly western subject matter, typical of an era in the evolution of man's contact with the desert.

Every false-fronted building and charred foundation has its own story to tell, as does each old-timer he meets along the desert trail. Mrs. Forsythe confides that a trip with Clyde is just a series of unscheduled stops—the rate of progress depending on how many grizzled veterans her husband meets along the way, and their proclivity for spinning yarns.

Actually, I believe Mrs. Forsythe enjoys these sessions with the old-timers as much as her artist husband. Anyway, he seldom goes on a trip without her.



*Forsythe's painting "Old Memories."*

Once they even took part in a widely ballyhooed gold rush. To hear Clyde tell the story, is to be entertained by a true humorist. He insists that the experience was quite tragic—especially the part when he invested some of his savings in sage-covered "city lots" out on the Nevada desert. But the more tragic the story becomes as Clyde relates it, the funnier it sounds to his listeners, and so he long ago gave up the idea of gaining sympathy for his misadventure in a get-rich-quick mining camp.

Forsythe has a fine sense of humor, and perhaps that explains the warm friendship that existed between him and the beloved Will Rogers. Like Rogers he has the knack of making his jokes laugh with people rather than at them. He turns more ridicule on himself than any other. Another of his close friends is Norman Rockwell. They worked together in Frederick Remington's old studio in New Rochelle, New York, for six years. And now they are sharing the same studio again—and, as in World War I days, are both designing posters for Uncle Sam. One of Forsythe's Victory Loan posters was a favorite of General Pershing's, and over a million copies were printed.

But even with the added pressure of war work, Clyde finds time to get away to his desert haunts regularly. He says he can

produce more and better art by arranging these outings. I believe every true artist will agree that he is right.

Although I have known Clyde Forsythe for many years, I had to

gain most of my facts about him from stray bits of conversation, or from his close associates. He does not seek publicity. He prefers that his work should speak for itself.

For two years I have been trying to pin him down to the task of giving me the pertinent, and as he expressed it, the "less embarrassing facts" about his life. Finally, in desperation, I appealed to our mutual friend Ted Slocum to explain to him that I was long overdue with a story for *Desert Magazine*—and wouldn't he please give a humble writer a break. The scheme worked, and the letter Clyde wrote was so characteristic I am going to reprint it, at the risk of being in the doghouse all the rest of my life. He wrote:

San Marino, California  
February 12, 1942

Dear Juan:

Ted told me you had sold your "bean" story to the Post. Congratulations. Now you can eat regularly for awhile, but don't stop speaking to me. And here is

#### THE SAD TALE OF ME

Born at Orange, California, '85 due to scarcity of desert painters. Went to Harvard Military school, L. A. and blew the

bugle, flunked in algebra, learned Spanish.

Illustrated school magazine which got me a job on the Los Angeles Examiner in 1903. Went to New York in 1904 to study art at Art Student's League. Got a job on N. Y. Journal in 1905 and was canned in 1909 which was dismal, having married in '06.

Went to work for Evening World drawing cartoons, took to illustrating magazine stories on the side, and painting covers. Got as far as Curtis Pubs., Colliers, American, Red Book, etc. Painted posters during World War No. 1.

1910 to 1918 came to California every two years and lit out for Coachella valley to paint and explore. Bought 80 acres near Coral Reef and still own it.

In 1913 I drove a car to Hidden Springs canyon. Ten years later told Charles Owen of the Times about it. He and Lynn Rogers did a motorlogue on it, opening it to the public.

I am the only desert rat of my acquaintance who can drive a car through deep sand and not get stuck. Am willing to tell Desert Magazine readers my system and illustrate it. (*Offer accepted.—Ed.*)

Came home in 1920, fed up with snow and ice, to be a real painter of the desert—and still have hopes. Been painting scenes, ghost towns and have made a lot of pictures of my prospector friends and their burros.

Belong to Allied Artists of America, the Salmagundi Club, N. Y., California Art Club, Pasadena Society of Artists, Rancheros Visitadores, and Uplifters Club of Santa Monica.

You heard me talk about Wahmonie, Nevada, so why keep writing this stuff? I'll probably be the only person interested except you and the printer.

See you soon,  
CLYDE

P. S.—I love my art!!!

And if Clyde objects to my printing this letter I am glad of it. It serves him right for keeping me waiting so long for the information. I can just hear him making remarks about "that lazy Hilton guy reprinting my stuff and getting paid for it."

I may partly square myself with Clyde by saying that he forgot to mention the numerous prizes he has won for his paintings and the long list of well-known personages in many parts of the world who are proud owners of his work.

It might help, too, if I explained that Wahmonie, Nevada, is the town where he bought the city lots—and that he has a fine business corner where Jack Rabbit lane intersects Broadway, not far from Dry Placer Gulch, which he might consider selling. Who knows? The town may boom again and the real estate rise to half the price Clyde paid for it.

Seriously, Wahmonie has paid plenty of dividends for Clyde Forsythe. He has

done a series of paintings which he calls "Gold Strike." These will live in the annals of American art long after the richest gold mines have played out.

They depict the development of a boom town, from the first hectic rush, through the tent city period, to the opulent era of false fronts and crowded dance halls. There is only one last scene yet to be completed—the old town in its deserted state.

## Wildflowers on Parade . . .

WILD flower reports for the Colorado desert indicate that this will be a "good year for the botanist, not so good for the tourist." From Palm Springs to the Mexican border, there is evidence that variety of species will be unusual but the masses of color will be absent—barring copious rains in late March.

This was particularly indicated in the Chuckawalla mountains, southeastern Riverside county, when Eva Wilson of El Centro found 60 species in one small area of this field on March 1. Among those beginning to bloom that date were the small crimson mimulus, thistle poppy, desert star, paper flower, yellow evening primrose, lupines, phacelia and apricot mallow. The most interesting novelty found was the desert poinsettia, which ranges from the Colorado desert down into Baja California and Sonora.

Making an early March report for northern Mojave area, Howard A. Bell of Trona saw little indication of a bright display for April. A dry early spring, which has been rather general over the desert this year, has retarded growth in the Randsburg-Trona region; there was somewhat greater rainfall along the Mojave-Lone Pine highway.

Flowers had an early start in Cronese valley due to copious rains early in the season, but unless March rains arrived, Elmo Proctor held little hope for a good April bloom.

Given another rain in March, Death Valley was expected to show a fair display of April bloom, according to Willard E. Shanteau, park naturalist. By the 1st of March the desert sunflower was fairly numerous along the main valley floor roads, and the crenulated phacelia was seen in Mud canyon.

Prominent among flowers expected during Easter in the Yuma area will be sand verbena, desert primrose, and desert lilies, according to estimate of Evelyn Smith, chamber of commerce.

Prospects for good April flowering were decidedly bright for southern Arizona the 1st of March, according to Louis R. Caywood, Tumacacori national monument. "There should be plenty of poppy fields, mallow, lupine and desert dandelion."

Then he will have added to the art treasures of the West a living story in paint such as has never been attempted.

I hope he will forgive me for printing his letter just as he wrote it—and invite me to go along when he paints the ghost town to complete his series. I might even buy one of his lots in Wahmonie, since that appears to be sort of a sucker town for artists.

Peak of the wild flower season in Organ Pipe Cactus national monument was expected to be reached by the first week in April. William R. Supernauth, custodian, reported in late February that many annuals had already started blooming, notably poppies, marigolds and mallow. Although he did not expect as good a display as last year, he believed this area would again afford one of the best Arizona flower shows.

According to an early report by Natt N. Dodge, the yellow brittle bush should be at its best on the slopes in the Casa Grande national monument area by April 1. At this time too the scorpion weed, one of the phacelias, which starts blooming in March, should show to good advantage, as well as crownbeard, an orange-yellow annual sunflower.

The first cactus to bloom will be the hedgehog, followed about the second week in April by staghorn cholla. The bright red blossoms of ocotillo will appear about mid-April to remain in evidence about a month.

### ARIZONANS START CRUSADE TO PRESERVE "SPOON FLOWER"

Civic organizations in Arizona have launched a vigorous crusade against the destruction of one of the desert's most distinctive shrubs—the sotol plant, *Dasyliion wheeleri*.

Popularly known as "Spoon flower" the blades of the plant are being widely sold for decorative purposes. The "spoon" comes, not from the flower, but from the very heart of the plant. They are placed upside-down in a vase and find a market merely because they are different.

Until legislation can be secured to protect them the public is asked not to patronize vendors who offer them for sale, and to protest against their sale at every opportunity.

In order to encourage the reseeding of the plant as widely as possible, the Cactus & Succulent Society of America through its conservation committee is offering seeds to those who will pay the postage. A seed package may be obtained by sending six cents in stamps to Mrs. M. H. Starkweather, 2111 E. Adams St., Tucson, Arizona.



Conspicuous because of its "convict" uniform and its bobbing flight, the Gila Woodpecker is one of the most easily identified of the birds that make their home on the Southwestern desert. One of the reasons it thrives in this region is because its home is guarded by the sharp spines of the Saguaro cactus. George Bradt will give you a closer acquaintance with this desert dweller.

## Bird with the Barbed Tongue

By GEORGE McCLELLAN BRADT

WITH a rush of wings and piercing cry a big bird, in an even bigger hurry, flew to the top of the old pock-marked saguaro under which I sat watching an October sunset. Slowly, in order not to frighten the noisy new-comer, I moved away from the cactus trunk so I could see the bird better.

The long-billed, black and white striped creature was unmistakably a Gila Woodpecker. After looking in every direction, crying at the top of its lungs all the while, cautiously it began backing down the cactus in short, jerky hops. Ten feet from the top there was a small hole and the bird stopped when it reached its lower rim.

For 20 minutes I watched this striking bird, in its striped, prison-like garb, try to convince itself that no enemy lurked on the horizon. With stiff tail spread and braced against the cactus it would look first into the hole, then all around the sky, then again in the hole, then over the ground again. Finally, long after the sun had set, the bird suddenly with one last shout darted into the cavity and stayed there. I had, by chance, discovered the Gila Woodpecker's "bed-room." Safe and sheltered in the deep hole the bird would sleep until dawn.

Few birds are so closely restricted to a single area as is the Gila Woodpecker to the region of the giant cactus. Not only does it nest and roost within the cactus itself, but derives much of its food from the insects that attack this "tree," and from the fruit it bears. In its search for wood-boring larvae the woodpecker digs holes in the saguaro. Then the cactus' peculiar ability to form life-saving scar-tissue serves to seal up the inner area of the hole, thus creating an inaccessible and bayonet-protected hide-a-way.

With the dawn I was back to watch the woodpecker begin its day. Just as the sun appeared over the mountains a chisel-like beak was poked slowly out of the hole. Then with a loud good-morning cry the bird shot from the cavity and with its characteristic "galloping" flight disappeared over mesquite and cat-claw. When on the wing this wavy, bobbing flight and the broad white bars on the upper side of each blackish wing serve as easy identification marks. The only other bird that flies in the same manner is the Flicker, and the latter's white rump so evident when flying, and its greyish-brown body makes confusion of the two woodpeckers unlikely.



In addition to the cactus fruit and seeds eaten by this loud-mouthed bird, its diet is varied with ants, beetles, lizards, and berries of the mistletoe that grows on desert trees. While generally reputed to be a destroyer of fruit and fruit trees this species seldom disfigures a healthy tree. But if it finds one infested with wood-borers it immediately attacks these pests and destroys them. It is in this work that the woodpecker's strange tongue comes in handy. The free end of a typical woodpecker tongue is comparatively hard, and armed with a row of barbs on each side. In some cases the length of the tongue is twice the length of the bird's head. It would be impossible to devise a more effective tool for dislodging larvae from holes in wood.

The Gila woodpecker, along with 400 other species, some of whom inhabit all the countries of the globe except the island of Madagascar and the Australian region, belong to one great family. The range of our particular species is quite limited, however: from California east to New Mexico and south to Jalisco, Mexico. But wherever observed the Gila woodpecker's dashing flight, flashy "race-track" suit, and happy shouting, invariably gives one the feeling that in very truth all's well with the world.

# Astaelakwa, House of the Vanished

On a high mesa in New Mexico, Richard Van Valkenburgh found mounds of debris and crumbling rock walls which marked the site of an ancient Indian pueblo. This is the ruin of Astaelakwa, sacked and destroyed by the Spanish invaders in 1694. Recorded history gives little space to Astaelakwa—but from the lips of an aged Navajo Van Valkenburgh learned the full story as it has been passed along from generation to generation for 248 years.

By RICHARD VAN VALKENBURGH

Illustration by the Navajo artist,  
Charles Keetsie Shirley

OLD Mariano the Navajo medicine man from Torreon was emphatic as he twisted his wrinkled neck and pointed with his lips toward the snow blotched scarps of the Jemez mountains in New Mexico.

"Dodi shal da!" I won't go there!

"That place is bewitched! There are too many *chindiis*. I know no medicine that

would protect against those ghosts. *Dota!* I want no death-sickness crippling me up. They died violently up there—a lot of them. No! I won't go with you, but I will tell you their story.

"To the east—part of a day's ride north of the pueblo of Jemez there stands a V-shaped mesa. Black thunder clouds hover over it. Forked lightning runs around. Under the southern point two dead-black streams glide out of shadowy gorges to make one big river.

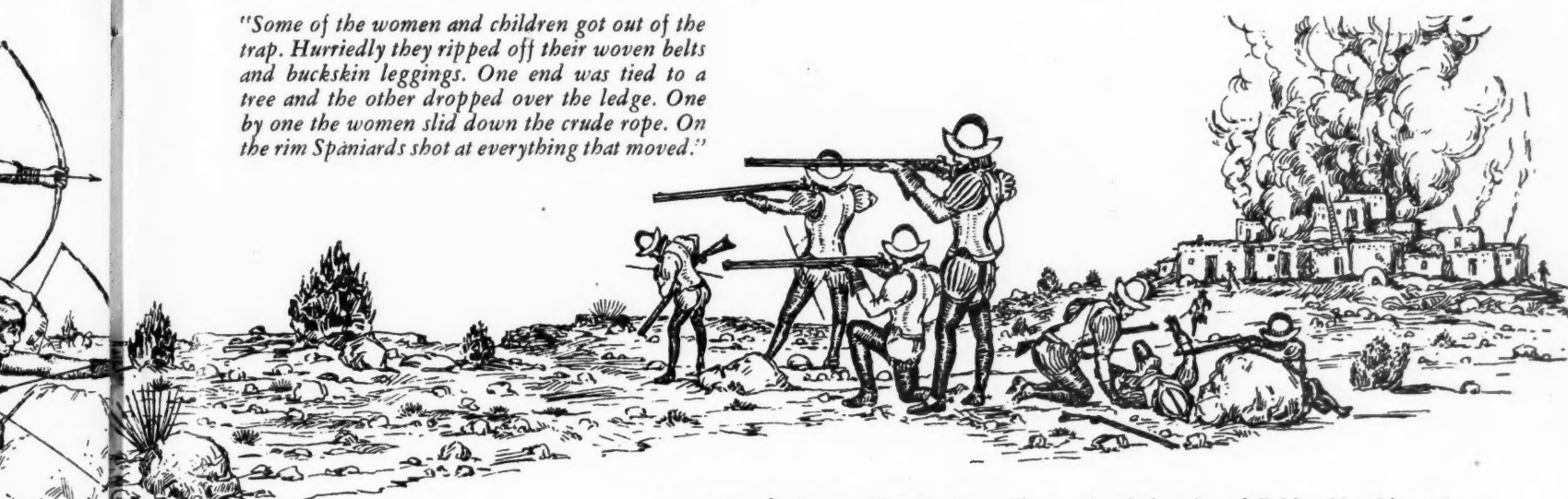
"Crumbling on the summit lie the walls of a great house of the dead. Many were killed when the Spaniards came there. The people of Jemez call it *Astaelakwa*, 'Place of the Index Finger.' Some say this name came from the shape of the



Charles Keetsie Shirley



"Some of the women and children got out of the trap. Hurriedly they ripped off their woven belts and buckskin leggings. One end was tied to a tree and the other dropped over the ledge. One by one the women slid down the crude rope. On the rim Spaniards shot at everything that moved."



Mesa of Astaelakwa which is the southern tip of the Potrero de San Diego.

"Four 'old-men's-lives-ago' the great grandmothers of a Navajo family dwelt there. Twenty 'arrow-flights' north of the pueblo is a deep saddle in the mesa. This Navajo clan took its name from this place, *Ma'iidesgizh*, Coyote pass."

The last glow of the autumn moon was fading behind the bulwark of Charca mesa when the tragic story of Astaelakwa was ended . . .

Mariano's story haunted me.

*Ma'iidesgizh*! Six years I had been searching for the exact location of this historic site. The records were vague. But now, through the fortuitous revelation of the old Navajo I had a definite clue.

No amount of urging would induce Mariano to guide me to the place. But my old friend Frank Walker, Navajo historian, was willing to make the trip. He knew the many unwritten versions of the clan story. He had no fear of the *Astaelakwa chindiis*.

Our search started from Jemez pueblo. We followed the cobbled road that winds up the east bank of the Rio Jemez. Fording the sparkling waters of the Vallecito Viejo we traveled north between rising cinnabar colored canyon walls. We passed through the dumpy Spanish-American village of Canyon. Before us rose a maze of canyons that sloped upward and faded into the smoky-blue elevations of the Jemez mountains.

We came to where the Rio Guadalupe and the Rio San Diego foamed as they joined to make the Rio Jemez. Towering a thousand feet above us bristled a sheer promontory accentuated by magenta and buff sandstone layers capped with matte-black breccia. According to our story, the ruin of Astaelakwa was in the heights.

Taking the right fork we went into the shadows of the gorge of the Canyon San Diego. Following Mariano's directions we

went towards Jemez Hot Springs. Two miles from the junction we came to a saddle that carved a deep scallop in the Potrero San Diego.

We parked our car in the naked cottonwood trees beside the river. I recalled the story for Frank. "Mariano said the pass was 'twenty arrow-flights' north of the V of the pueblo. That spindle-shaped projection veering to the south must be the Mesa of Astaelakwa. I am going up. If things on top check with Mariano's description, we are now looking at the pass of *Ma'iidesgizh*."

The Rio San Diego churned between me and the saddle. Slinging my boots and camera bag over my shoulder, I plunged into the icy stream. The bottom was covered with slick stones. It took balancing to negotiate the thigh-deep water.

A ragged ravine slashed upward through the brittle tuff. I found a thin trail that rambled through thickets of

Gambels oak and fields of boulders. Every 20 paces, more or less, small stone cairns had been placed carefully on large rocks. Following these Indian trail markers I soon came to the nadir of the saddle.

The ancient trail looped over and disappeared into the depths of the Canyon Guadalupe. On the south a steep talus slide led to the summit. Halfway up I glimpsed the silhouette of a masonry wall against the sky. Soon I was climbing through terraced rooms snugly built into the monoliths that breasted the rimrock.

With the terraced rooms below me I found myself on a U-shaped bench. The entire rim was outlined by a three foot wall of stone. One unbroken section measured over 200 paces. Nearby were small piles of boulders. It was not hard to picture the Indians casting them down on any enemy who attempted to storm the mesa.

After my prowling in the Indian fort I climbed the low ridge that bisected the



At the head of the trail leading up to the Mesa of Astaelakwa. The stones are all that remain of the fortification walls erected around the rim of the mesa for protection against invaders. In the distance is snow-capped Cerro Redondo, highest point in Jemez range—elevation 11,250 feet.



*Mesa of Astaelakwa. Ruins of the ancient pueblo are located above the sheer cliffs marked by the light-colored rock. It was over these cliffs that the women of the pueblo escaped.*

mesa top. The course lay down a gentle slope bordered by gramma and bear grass. Pottery shards and the grass covered outlines of small houses began to appear.

Breaking into the open from the forest of stunted piñons and junipers, I suddenly came to the edge of the mesa. Far down the valley the spiraling smokes of Jemez melted into the sky. Before me spread the mounds and walls of an ancient village.

#### *Astaelakwa!*

It was not difficult to recreate the town as it lived 300 years ago. The main cluster of the two or three story pueblo was built of breccia. Some 100 quasi-square rooms formed the rectangle around the plaza or dance ground. To the east small unit houses extended to the cliffs. The kivas were joined into the crevices in the rimrock about the Canyon Guadalupe.

No one knows when the Jemez started to build Astaelakwa. During the seventeenth century it was one of the thriving towns of the Jemez province. For years its people lived in peace.

Then from the south came the Spaniards. With them were the brown-clad Franciscan friars.

Some say they built the Mission de San Juan de los Xemes at Astaelakwa. I searched through the confusion of the houses. There was an outline on the north side that may have been the mission. It appeared to have the nave, chancel, the transept of a cruciform church.

Sitting above the ruin in utter silence except for the moaning of the afternoon wind through the fallen walls, I thought of Mariano's tale of the tragic fate of the people of Astaelakwa.

"*Djini*. They were slaves of the Spaniards. Like burros they worked them in the fields. Many tried to run away. Soldiers with iron shirts and guns chased and killed them.

"They grew tired of working for nothing. There was a man named Popé from the pueblo of the Red Houses. He called the head men together. They made a plan. Each carried away a knotted string. One knot was untied each day. When the last one was loosened they started killing Spaniards.

"They caught the 'Long Robe' in the 'singing house' at Astaelakwa. He was led to the village plaza. Then they shot him full of arrows. They left his body by the walls of a kiva.

"Soon they got over being angry. They worried. Maybe the mean Spaniards would return. They might kill everyone. Many summers passed. Peace seemed to have again returned. The Spaniards stayed away for 12 years.

"One day a runner came up the valley. The Spanish had left the pueblo of Zia. They knew the 'wide hats' were after them. Everyone was frightened. The children started to cry. From behind their walls they watched.

"A cloud of dust rose below them. Something glittered. The Spaniards had come! Warriors strung their bows as they ran to the breastworks at the head of the trails. Women followed them. They would roll rocks down to smash the Spaniards.

"The Spaniards started up the slope. The Indians fought hard. Arrows and stones were weak against the steel and gunpowder. The warriors were pushed back from the trail heads. Soon they were trapped on the point by the pueblo. Many screamed as they hurtled over to die on the sharp rocks below. It was like a deer hunt.

"Some women and children got out of the trap. They hid in the rocks and trees. Hurriedly they ripped off their woven belts and buckskin leggings. Their hands shook as they tied these together. One end was tied to a tree and the other dropped over the ledge.

One by one the women slid down the belts. Children cried and babies whimpered on their cradle boards. When they reached the bottom they ran. Like prairie dogs they scuttled under large rocks. On the rim the Spaniards shot at everything that moved.

"The sun went down. *T'ebona'ai*, the 'Moon Bearer,' started across his star trail in the heavens. A mantle of darkness fell when he went down to his home in the west. Out of the canyon bottoms came the muffled hoot of owls.

"Those who lay captive by their burned



pueblo on the mesa point understood. This was the old Indian way of signaling. Some of their relatives had escaped the slaughter. Their hoots grew fainter as they slipped away in the night like a pack of coyotes.

"This was their farewell. For a time they lived in the mountains of the west like wild animals. Some wandered into a Navajo camp. After listening to the story of their escape, the chiefs allowed them to stay. They were industrious and made fine decorated pottery. Men of our 'Beside the Water' clan married them.

"They never returned."

\* \* \*

The raw evening wind snapped me out of my soliloquy as the winter sun started to slant behind the serrated crags of Cerro Pajarito. Obtuse shadows pierced by ghostly shafts of pale yellow light spread across the mesa tops and tumbled into the abyss of the canyons. When I reached our car the dim heavens were a spectral pink with a feathery applique of streaky flame.

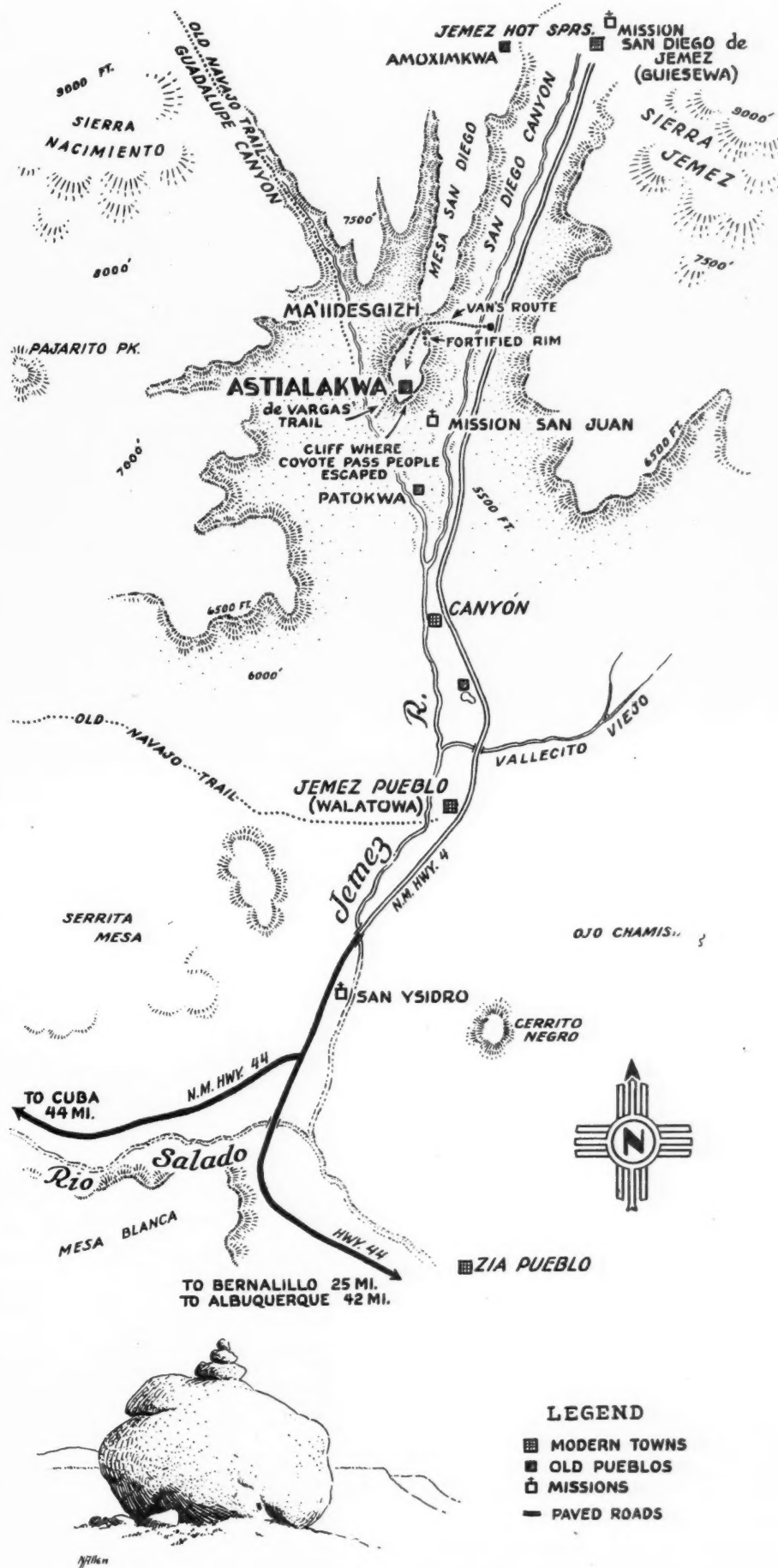
After my return to Fort Defiance, Mariano's story of the haunted mesa kept bothering me. I wondered—were those Indians really massacred at Astaelakwa. I had the Navajo version. Was the report of the Spanish commander in any archive? I started searching through my references for accounts made during the troubled years of the Pueblo Rebellion. I found the following in Twitchell's "Leading Facts of New Mexico History" as taken from the *Auto de Guerra*, 1694-1696:

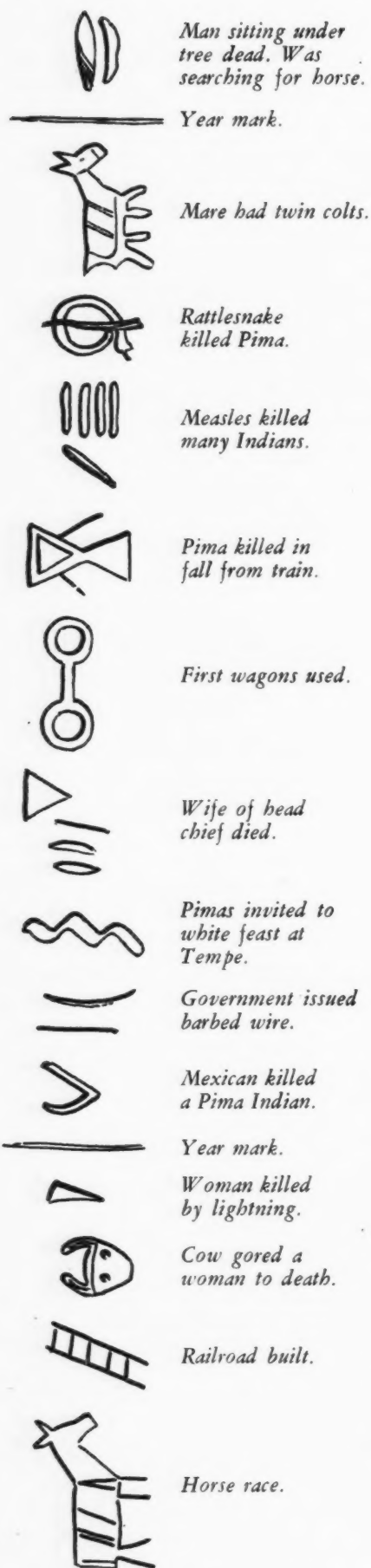
"De Vargas left Cia (Zia) at 8 o'clock on the 23rd day of July, 1694, and at a distance of four leagues near the junction of two streams divided his men into two parties. One of these consisting of 25 Spanish soldiers under the command of Eusebio de Vargas and the Indian allies, was to enter the gorge of San Diego and climb the mesa on a dizzy trail so as to reach the rear of the highest plateau, while the main body led by de Vargas himself, ascended from the southwest . . .

" . . . the operations were completely successful, and the Indians were between two fires; but they offered desperate resistance. The total number killed on this occasion amounted to 84—five of whom perished in the flames, and seven who threw themselves down the cliffs rather than surrender.

" . . . this defeat caused the Jemez to flee to the Navajo country."

Thus have generations of Navajo story tellers handed down the events of their unwritten history with more detail than the versions preserved in the writing of the archives. To the Spanish the massacre of Astaelakwa was only one of a series of campaigns. But to the Navajo it is the proud story of how one of their clans won its way to freedom through the ordeal of blood and fire.





Man sitting under tree dead. Was searching for horse.

Year mark.

Mare had twin colts.

Rattlesnake killed Pima.

Measles killed many Indians.

Pima killed in fall from train.

First wagons used.

Wife of head chief died.

Pimas invited to white feast at Tempe.

Government issued barbed wire.

Mexican killed a Pima Indian.

Year mark.

Woman killed by lightning.

Cow gored a woman to death.

Railroad built.

Horse race.

Sketches copied from the Calendar stick as Juan Samuel told his story to the author.

## Prologue

For centuries the Pima Indians have lived in the valleys of the Salt river and the Gila. They were living there at the first coming of the Spaniards, always at war with marauding Apaches; always fighting with the elements for a livelihood and always at peace with the white race that crowded into their country. The Pima domain is surrounded by towering mountains rising abruptly from the Arizona desert and fencing the Indians into their lowland where saguaros stand sentinel and cholla cactus glistens in the burning sun which beats down on the land.

But throughout the centuries the Pimas have wrested their food and clothing from their desert home, asking nothing of red or white neighbor except to be left unmolested. Pima women weave beautiful baskets of the desert shrubs, and of the clays underlying desert sand they fashion shimmering smooth red pottery. The men cultivate their crops, defend their homes against all comers, and today their reed and clay habitations nestle in peace beneath the feathery mesquite and willows.

It was not always thus. Only a few years ago the women were afraid to venture into the low hills where their basket material grew, and the men never cultivated their fields without a watch for Apache enemies. The chronicle of those years has been kept by notches and symbols cut in willow sticks, and from the reading of these Pima Calendar Sticks we have learned the story of the Pimas.

## Time Marches on in Pimeria

By MRS. WHITE MOUNTAIN SMITH

A MESQUITE tree hung against the desert sky like wisps of smoke, and in its shade Frank Pinkley and I sought refuge from the midday heat of Southern Arizona, Juan Samuel, grand-

father of the Pima boy beside us, sat on a woven mat in the white sunlight and fingered the precious stick carved with the history of his people. One could see that he was not entirely happy, even though he knew and loved Frank Pinkley, a friend of 30 years.

"My son, I do not like to talk to women. I do not trust this white woman you have brought. She will listen to the talk and then put on the paper what she wishes." He spoke in Pima. The grandson tried to soften the old man's words as he interpreted.

"Say to your grandfather that only the words he says will reach the paper. You shall see what is written and explain to him before it goes out for the white race to read!" And with this assurance the history lesson started, Juan Samuel speaking in his full toned voice and the young Pima changing his speech into English.

"For untold time the Pima people have had this land. Our fathers brought water to the fields by small canals and always we have raised beans and corn and pumpkins. A-kee-mull (the Gila river) has been good to us. It brings the rich soil to the fields and then the moisture that will make the crops." Here he thoughtfully passed his hands along the length of the stick as a musician touches his violin.



Juan Samuel—Keeper of the Calendar stick. Photograph by Frank Pinkley in 1929. Courtesy National Park service.



This Calendar stick was a willow wand perhaps four feet in length and an inch in thickness. Each side was slightly flattened and both sides were closely crowded with dots and notches, dashes and grotesque carvings. The history proceeded down one side, around the end and back up the other side to the beginning and covered a period of about 70 years of Pima annals. Sticks older than that had been lost or destroyed by fire, and events dating from the time this particular stick covered had been kept by the use of pencil and paper. Only this Calendar was to be found among the Pimas. Others had been collected and placed in museums in the East, and the one Juan Samuel had agreed to read for Mr. Pinkley and me was destined to join its companions. As far as we know only the Kiowa and the Sioux Indians have kept carved records of the years similar to those of the Pimas and they discontinued the custom many years ago.

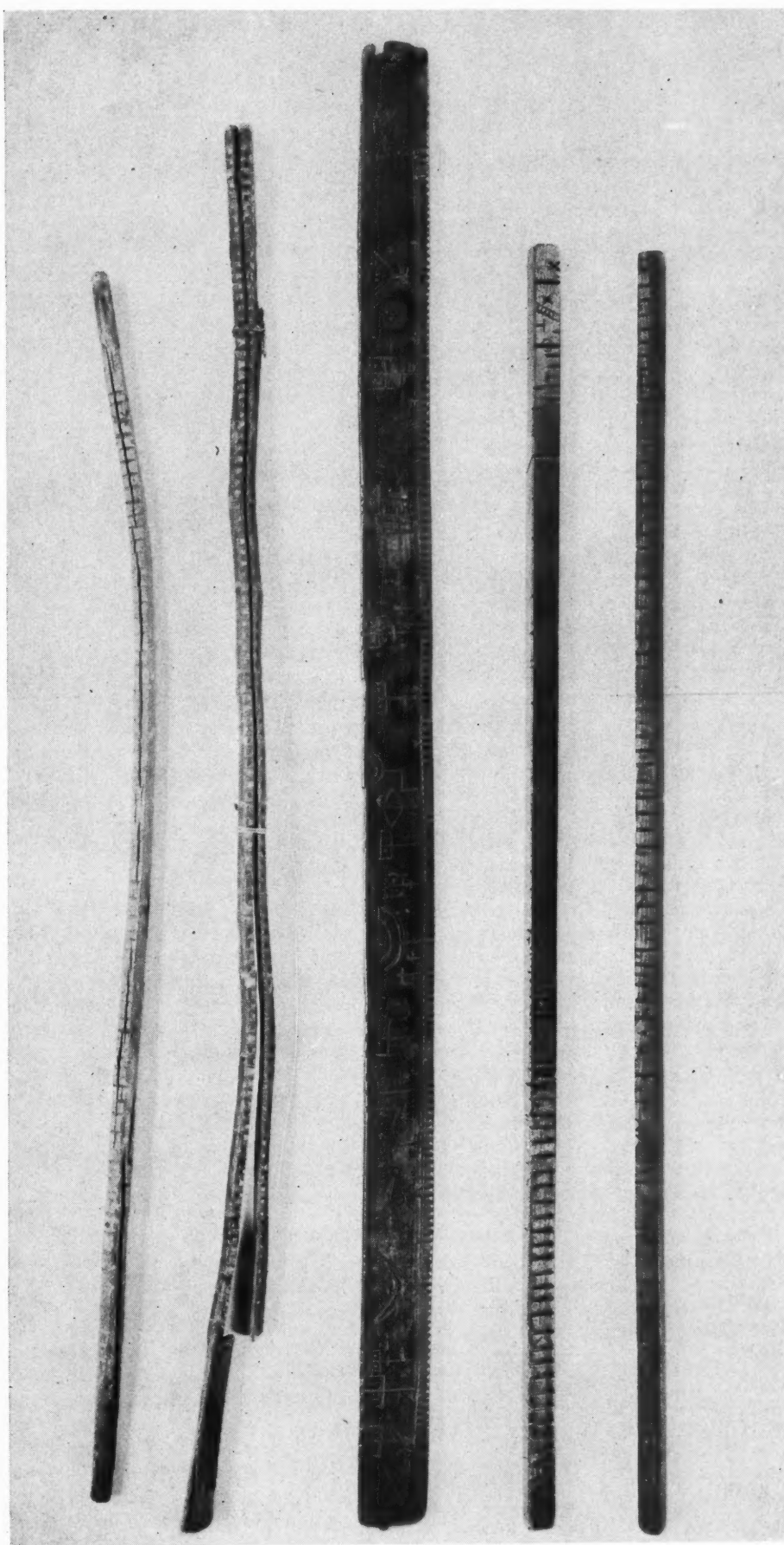
It was with great reluctance the historian permitted me to take his wooden calendar into my own hands and examine it. Since he was almost entirely blind he turned his head this way and that like a listening bird while I pleaded with him. At last appearing to be satisfied he surrendered the stick. To me it seemed to be covered with small dots and little straight notches. Now and then comical human figures showed up and they looked like a child's first efforts at art. I noticed when the frail sensitive old fingers touched one of these figures he narrated a tragedy of some sort. Perhaps a rattlesnake bit a woman gathering mesquite beans, or the Apaches came and killed a Pima or carried away a woman. Once, fingering a human figure he stopped and went back along a few notches in front of it. "This is when the fire came out of a cloud and burned two men working in the fields."

"How do you know they were men the lightning killed?"

"They have legs!" Looking over his shoulder I saw a crude human figure. The women were mere exclamation points without detail.

All of the history was not drab danger and hardship. For instance a certain type of design recalled a happy experience to the old man living completely in the past. Agave or saguaro liquor was brewed until it was about 200 percent proof and what a brawl ensued. "Two men were killed because they liked the same woman!" A discreet cough recalled our *raconteur* from his grinning memories.

"This was the moon when the Yumas crept up on the Maricopa village and stole lots of women. They had arrows and clubs with which to fight and they started back across the *A-kee-mull* with the women but the Pima warriors arrived and fought with the Yumas. The captured women hid in the chaparral and ran back to their homes. Few of the Yumas escaped alive . . . Then



Left to right: (1) Pima calendar stick. (2) Turkish tayy stick from Asia Minor. (3) Calendar stick from Norway. (4) and (5) Pima calendar sticks, Southern Arizona. These relics in U. S. National museum. Photograph courtesy Smithsonian Institution.

the stars fell. (This doubtless refers to the meteoric showers of 1833-34.) And the river was angry with the Pimas and great waters covered the land. That was to punish some of our people who displeased the medicine men. But next year (distinguished by the longer notch across the stick) came the bountiful crops of corn and wheat and squash and watermelons which grew in the rich soil the angry river carried to the fields. The witch was killed that year also."

The old man pressed his thumb into a deeper carving, then retraced the last few engravings to be sure he was right. "Our people were so thankful to the gods they danced and feasted and drank so much tiswin made from the cactus fruit juice, they were too drunk to have their senses and the Apaches came and killed a woman. When the Pimas were sober again they followed and five Apaches were slain. That was when we learned the Apaches wore rawhide jackets which made the Pima arrows bounce harmlessly away . . . A year passed and no Apaches came. We tilled the fields and filled big baskets with food which our women hid in the ground and covered with cactus thorns so the little animals would not dig it up."

The story went on and on, mostly recording tales of Apache warfare and return engagements. One sign something like a skull and cross bones recorded a plague which swept all the Gila river villages leaving sorrow and death in its wake. "Four medicine men were the cause and they were stoned until they died, then the sickness went away!" Grandfather droned on with the record and the brisk young voice of the young schoolboy translated while staring with amazement at the shorthand symbols I put down in my notebook. I expect he wondered what was the use of merely changing funny looking marks.

A plump young matron had joined us in the shade and engaged Mr. Pinkley in conversation. She told him she used to visit his trading post when she was very small and that he always gave her candy. She was busy getting materials ready to weave a basket which she said, with a giggle, she expected to sell to me. It is unusual for a Pima woman to work on basketry except in the winter and she definitely was making the basket for me. It hangs above my desk today.

She had a bundle of willow twigs moist with sap and she peeled and split these with her strong teeth. She had been soaking seed pods of *martynia* or Devil's Claw over night and now she tore the black outer covering off with her teeth. This black material is used to form the figures and designs in the basket. I noticed she took only one strip from the center of each claw and then threw the pod away although two or maybe three strips could have been secured. Her answer, when I asked why she did this, was very charac-

teristic. "My mother and my grandmother only used one strip!"

Grandfather was impatient with all this woman talk and he shuffled his moccasin shod feet to let me know I was wasting his time. He had nothing else to do with time, but no female was going to impose on him. "Now here, Apaches were beating beans out of dry mesquite pods when the Pimas shot arrows into the camp. A blind Apache was killed." I looked very carefully at the symbol and the Apache *may* have been blind. I could see nothing pertaining to his eyesight. "The one armed white trader sold his store and for some reason not known to the Pimas threw away his grain which our people gathered up and saved."

Many of the events related may seem trivial to the white race so terribly busy with its inventions, its wars and its stock market ups and downs, but we must realize that the relative importance of events differs in the minds of white people and Indians. As I looked over the things he had recorded on the stick I found they covered, according to importance given them by the historian—battles, floods, earthquakes, falling stars and droughts; years of plenty and tiswin celebrations; sickness; accidents such as lightning, drownings and rattlesnake bites; and later events connected with the establishment of schools, missions, railroads and telegraph lines.

"Two medicine men, father and son, were killed because they betrayed the Pima people." And here was an event, indeed—"Firearms were given the Pimas by the big white soldier." General Carleton issued firearms to the Pimas to defend themselves against the Apaches. "Children were piling up gourds in a heap when Apaches crept up and killed them." The small round dots were the gourds. "The telegraph line was run through from east to west."

"How do you know it was built from east to west?" I asked.

"The carving is sloped toward the last end of the Calendar."

"A Pima was killed by his horse because he caught it by the tail and it dragged him to death . . . while a party was gathering tiswin material a mare had a colt . . . a white man went hunting his horse and he died from being tired. He was found sitting against a tree. The roaring machine came on a steel road on the edge of the Pima country." The Southern Pacific railroad built its line through there in 1876. "A Pima robbed and killed a white man and was hanged at Florence. Measles killed many children. A drunk Pima fell off a freight train and was

killed. The first wagons were issued by the government to the Pimas. A white man was shot and killed by a Pima. White settlers at Tempe invited the Pimas to a feast. The wife of the head chief died."

As the story went along signs of civilization crept into the pages. "During a tiswin feast a man put poison into the drink of his love rival who died in great agony! A Mexican killed a Pima but the Pimas were good enough not to want to kill the Mexican." And during the next few years a mission was built, a schoolboy committed suicide; there was a heavy fall of snow which could be rolled into balls and which frightened the Pimas. One year no crop at all grew and the Indians were all hungry. Barbed wire was issued by the agency; lightning struck a stagecoach and killed a Pima riding on it. The Indian department established a school and the children soon thought they were much smarter than their old folks. (Flaming youth knows no creed nor color.) A Pima youth employed to carry mail became insane and shot a white man he met on the road. The last entry on this stick was made in 1900. "The President came to Phoenix."

That ended the story and we left the old historian gently touching a notch here and there and dreaming of the glory that was past.

• • •

## VETERAN INDIAN TRADER DIES AT ORAIBI HOME

Lorenzo Hubbell, 58, who had lived among and traded with the Hopi and Navajo Indians all his life, died at his home at Oraibi, Arizona, March 2.

Hubbell, son of the late Don Lorenzo Hubbell, who for years was the leading trader among the Indians, never had known any other life except the years he spent at Notre Dame university.

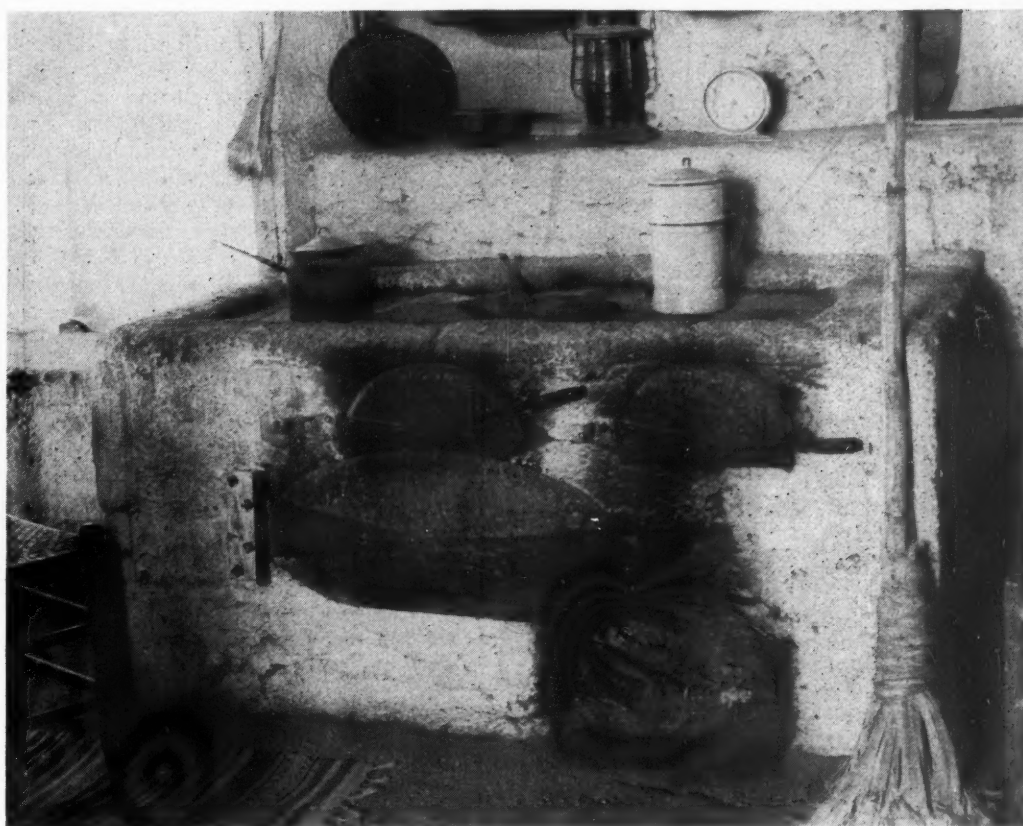
At the age of six he began trading striped sticks of candy to the Indians for copper bracelets. He bought his first trading post at Keams canyon at the age of 19, and was credited with being the first of the traders to give Indians money in exchange for their rugs, blankets, baskets, pottery and other products.

"It was hard to get them to accept a small gold coin instead of a huge pile of copper bracelets," Hubbell once said. "But as soon as they learned that the coin would buy as much goods as the copper wire they took it readily."

Hubbell was a native of St. Johns. He is survived by a brother, Roman, of Gallup, N. M., and a sister, Mrs. Barbara Goodman, of Ganado. Funeral services were held at Ganado.



*Adobe cooking range in the South home at Yaquitepec. The iron doors were cut and hammered from tops cut from iron drums. Broom at the right was made from mescal stalk and blades.*



The desert mescals are in bud, and this is the time of the year when roast mescal becomes an important item of food for Marshal South and his family on Ghost mountain. This year the Souths have a new tool for the digging of mescal pits—or rather an ancient tool newly discovered. They have learned that prehistoric Indians fashioned from hard wood a fairly good imitation of the modern spade. No doubt the archaeologists have known about these Indian spades for a long time—but this year the Souths will make their first practical use of the aboriginal tool.

## Desert Refuge

By MARSHAL SOUTH

**T**HIS morning, when I sat down to the typewriter, it would not work. The keys tangled and jammed; even the carriage had locked itself immovable. The machine is of the "noiseless" variety and hard to peer into. The family was called in consultation. We gathered round the mechanism as surgeons about the bedside of a patient desperately ill. Rider fetched his Christmas flashlight. By its beam we peered deep into mysterious mechanical caverns. Heavens!—the whole interior of the machine was carefully crammed full of wheat!

Desert mice!—the mystery was solved. But where, we asked ourselves when we had recovered from our astonishment, had they gotten the wheat. Then, suddenly, we remembered. A few days previous, Rudyard, running with a can of grain to feed the chukka partridge, had tripped and dropped his burden. Wheat had been scattered widely over the gravel floor. We had retrieved all that we could. But night was shutting down and in the gloom we necessarily made a very poor job of it. "Well, anyway, our little mice will enjoy it," we had said. The floor was clean in the morning, so we knew they had found the wheat.

They had stored it all. The typewriter, standing on a high shelf, had been unused for several days. What prompted the little desert workers to carry the grain into this extremely difficult-of-access hiding place is a mystery of mouse psychology. It must have been quite a job. Noiseless typewriters have intricate mechanisms. It took us an hour of shaking, and key-jiggling, and poking with fine wires, to dislodge the wheat and get the machine working again.

However our Yaquitepec animal friends are remarkably well behaved. White footed mice, pocket mice and packrats have all alike accepted us as part of their world and give us very little trouble. Once in a while, in moving some box or basket

that has stood in a quiet corner for a long span, we disturb a terrified mother mouse who, with her half-naked brood of clinging babies, has to be carefully transferred, nest and all, to some safe place on the outdoors. And more than once we have come upon weird collections of sticks and cholla joints and mescal pods wedged in the spaces behind our storage barrels; proof that an industrious packrat has found, somewhere, an entrance hole to the porch—usually one that takes us a long time to locate and block. These occurrences however are no more than friendly contacts with our neighbors and serve to remind us that we are all one big family—all of us with busy lives and loves and family problems. Man is so blundering and blind. One wonders sometimes on what grounds he demands mercy from his Creator when he himself gives so little to the wild creatures among whom he lives.

Last night was warm and at midnight I went out to open up another shutter of our screened sleeping porch. The gravelly earth was hard and chill to bare feet and in the ghostly moonlight the grey rocks and shadowy junipers and mescals had an eerie look, as though one wandered homeless through the dim landscape of some deserted planet. High overhead the moon, just past its first quarter, rode coldly gleaming through the thin grey murk of a cloud-filmed sky. The ghostly reflection of it was wan silver in the dark waters of our little pool. Silence! Not even the whisper of a wind. The silence and mystery of the desert.

Everyone in the house was asleep. Through the unshuttered screens its interior was a dim cavern of hushed shadow and half glimpsed form, through which the low-turned flame of the old ship's lantern gleamed as a soft star of peace. What a strange thing is sleep. And how symbolic. The comforting, protecting arm of the Great Spirit drawn tenderly about tired children at the close of the day.

I did not at once go back into the house. Instead I sat down on the upper of the two rock steps that lead past the cisterns to where the woodpile is. Upon my bare body the chill of the night air struck with a tingling, electric glow that was almost warmth. Far off, through a mist-rift above the shadowy ridges, the North

Star gleamed. Almost I seemed to hear the deep, measured breathing of the earth.

I must have sat there a long time, hunched knees to chin, staring out into the silence and the stretching dimness of tumbled rocks. Just how long I do not know, for one does not keep record of such musings. The night air was like a garment of peace, and the overhead arch of the desert stars, appearing and disappearing through rifts in the canopy of haze, was as a glorious procession of the Heavenly Hosts, streaming forward triumphantly across the fields of Paradise.

Peace! Assurance! Joy! A triumphant upwelling of the heart which no temporary storms of disaster and mortality can shadow or destroy. One gets very close to the heart of things, sometimes, in the desert silence. Close to the mysteries which the old Chaldean astrologers traced in the night skies; close to the joy of the desert shepherds who saw the gleaming of the strange Star in the East. Not often, amidst the glare of man's garish lights or the turmoil of man's boasting, can such things be sensed. But always—even through the blatant din that is called "progress"—it brings soothing peace to know that, eternally, beyond the passing tumult, these things ARE.

Mescal roast time is approaching. Several plants close to the house are already sending up their plump shoots. The crop will not be as generous as last season. That is the way with most desert growths. Everything proceeds in cycles; a high crest is followed by lean years. If one could devote several lifetimes of careful study to this maze of intertwined cycles—varying with each plant and organism—many of the mysteries of Nature might be unlocked.

But this season, in the matter of mescal roasting, we approach the task with one more new scrap of knowledge. Our desert Indian predecessors did not always use their hands or a convenient flat stone, as we had supposed, when digging or uncovering their mescal pits. They sometimes used shovels—wooden shovels.

An interesting discovery. Not so much from the actual fact of the implement itself as for its demonstration of the ordered path of invention and evolution. We had known of the ancient "digging-sticks" for a long time, having unearthed several specimens of these time-weathered ironwood relics from hiding places near long forgotten roasting hearths. But we had never found a shovel. And, until recently, when one was brought to our attention by another desert dweller, we were unaware of their existence.

Comparatively rare, these shovels, apparently. But nevertheless some were in use in ancient times. About 28 inches long, from the end of its stumpy handle to the tip of its flat, square blade, the specimen shown us had been discovered hidden away in a crevice under a huge granite boulder not far from Ghost Mountain. Carefully hewn from a single piece of wood—and that, seemingly, the rounded slab split from the outside of a large tree—this age-grey relic bore evidence of skillful workmanship, and of much use. How old? Who can say. Long antedating the white man, evidently. The dry air of the desert is kind to wood if it is at all sheltered. What ancient tales of fire-flame and mystery might this grey piece of man-hewn tree trunk reveal if it could speak. Somehow it raised odd, wistful sensations in our hearts as we examined and handled it.

Wood! There is something about wood—man-shaped wood—and also about ancient, man-chipped stone, which stirs the imagination.

The Age of Wood. The Age of Stone. The Age of Bronze. The Age of Iron. Today the Age of Steel. Stages of the trail—the trail of man's progress.

Dawn to Dark. The old, old trail. A long trail. It is good that upon it there are sections where one finds chipped flints and wooden tools. And it is good, sometimes, even in an age of "efficiency" to stand naked and free upon a high rock in the chill dawn and watch as did primitive man the sun flame up in glory across an untamed wilderness. Thus, and thus simply, may man discover the Great Spirit in his own soul. When sham and

hypocrisy and artificiality are shed assurance is born in a steady burning flame of faith and beauty that needs no progress or logic for its adorning. Did you ever pause to muse upon that mysterious Stone Age race, called sometimes the Cro-Magnons, whose trace is preserved in the dim grottos of Europe? There are things about them worth musing over. Some of their art work, still to be found in deep caverns, is remarkably skillful and fine.

Bees droning in the desert sunshine. And out along the terrace wall in front of the house a couple of speculative butterflies hovering over the new heads of the chia sage. In the kitchen, before the adobe stove, Tanya is expertly flipping whole-wheat tortillas onto and off a sheet of tin, flattened from a five gallon honey can. The tin is smoking hot. Beneath it are flames of juniper sticks and mescal leaves. Primitive? Yes.

Flick!—and the thin, round wafer of dough drops upon the hot surface. A momentary toasting. Then over, on the reverse side. Then as swiftly off onto the waiting plate. Or into an eager, outstretched hand. For she is ringed with an attentive, appreciative audience. There is nothing quite so primitively toothsome as a new-made tortilla, fresh from the fire. Even little Victoria dances and shouts, stretching eager baby fingers and munching with a satisfaction that leaves no doubt as to its wholesomeness. She has nothing to be ashamed of in her appetite, which matches that of her two brothers. When the three of them decide to sit in on a tortilla bake Tanya is lucky if she has anything besides an empty plate to show at the conclusion of her labors.

#### TWILIGHT

The sun sinks low,  
A million echoes rise,  
To cheer the foe,  
So darkened are men's eyes.  
We see but steel,  
And iron—tools of prey,  
Oh help us feel  
God ever guides the way.

—Tanya South

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# Desert Place Names

Magazine is indebted to the research work done by the late Will C. Barnes, author of "Arizona Place Names;" to Betty Toulouse of New Mexico, Hugh F. O'Neil of Utah, and Marie Lomas for Nevada.

For the historical data contained in this department the Desert

## ARIZONA

● **SHUMWAY**, Navajo county. Located four miles south of Taylor on Silver creek. Named for Charles Shumway, Mormon pioneer who settled here "at an early date." About 1886 or 1888, residents built a suspension bridge over the creek to connect the sections of the town which lay on both sides of stream. Will C. Barnes believed this to be the first suspension bridge in Arizona. Postoffice established January 9, 1893, James Pearce, P.M.

● **FRANKLIN**, Greenlee county. Named for Mormon Apostle Franklin D. Richards in 1898. According to Barnes, settled 1895 by Thomas J. Nations. P. O. established May 17, 1905, Nephi Packer, P. M.

## CALIFORNIA

● **SILSBEE**, Imperial county. Thomas Silsbee was one of the first permanent settlers in the valley, 1891, when Imperial was still a part of San Diego county. The Imperial Land company started the town of Silsbee in October, 1900.

● **RASOR**, San Bernardino county. E. A. and C. M. Rasor were civil engineers who came to this county in 1897. At one time E. A. Rasor was a mining engineer and superintendent for the Yellow Jacket and Columbia Mining company in Idaho. In 1898 he was appointed U. S. mineral surveyor for the San Bernardino district.

## NEVADA

● **AURORA**, Mineral county. In 1860 valuable ore was discovered in this area by E. R. Hicks. In less than 10 years it produced at least \$30,000,000 in bullion, and had a population of 10,000 by 1864. Named by J. M. Corey for the goddess of dawn. Town was claimed by both Nevada and California. Had been controlled by California until 1863, when two elections were held, one for Esmeralda county in Nevada and one for Mono county, California, Nevada winning the decision. Mark Twain lived here several months while investigating some mining claims he and his brother, Orion Clemens, Territorial Secretary of Nevada, had purchased. Failing to find the golden harvest he sought, Twain abandoned mining. While here he received an offer of \$25 a week to work as a reporter on the Virginia City Territorial Enterprise, to which he had written letters for publication.

## NEW MEXICO

● **FORT WINGATE**, McKinley county. School and military reserve. Established in the early 1850s, on the site of the signing of the famous "peace treaty" of 1846 between the Navajo Indians and the United States army, in which the Navajos agreed to a "no more raiding" clause, and which lasted almost two years. The fort was originally known as Fort Fauntleroy, named in honor of General Thomas Turner Fauntleroy. The name was later changed to Fort Lyon and as Fort Lyon, was abandoned in 1862, the buildings being used today as a boarding school for Indians and known as the Fort Wingate Indian school.

A few years later Fort Wingate, named in honor of Captain Benjamin Wingate who died June 1, 1862 in the battle of Valverde, N. M., was established a short distance from the original site, and maintained for the control of the Navajo Indians. It was officially abandoned August, 1868, and is now the United States army ordnance depot for this section of the Southwest.

● **McINTOSH**, Torrance county. Named for one of the earliest Scotch settlers in the Estancia valley, who grazed thousands of sheep in the area. When the New Mexico Central rr extended its line into the valley in 1902, one of its stations was given his name.

## UTAH

● **CALLAO**, Juab county. First called Willow Springs. When a postoffice was established here, it was changed to Callao, from a department in Peru and the capital of the province of Lima in South America, one of the citizens having been there. On route of the Pony Express and Overland Stage, ruins of the old stone relay station still in existence.

● **ALPINE**, Utah county. Named because of mountain location. Formerly called Mountainville. Set in a cove against the base of the Wasatch mountains. Old adobe and log houses predominate.

● **WANSHIP**, Summit county. Settled in 1859 and named for a Ute Indian. In 1872, when the population was three times the present number, it was an important stage station on the Overland route. The frame houses, many still standing, were built of native lumber, sawed at pioneer mills in the mountains.

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## GREATEST NEED IN HISTORY!



AMERICAN RED CROSS



*Cholla has a tough lacy skeleton that remains strewn on the desert long after spines and flesh have weathered away.*



*This typical cholla was photographed in Borrego valley, California.*



*The skeleton of dead cholla lends itself to many artistic uses—lamp stands, picture frames, ash trays, napkin rings, flower vases, etc.*

Most of the thorns that grow on desert shrubs play merely a defensive role in the life of the plant. But if you ever have an encounter with a cholla you'll forever vow that the cactus started the hostilities. It is called "jumping cactus." It doesn't really jump at you—but due to the barbs on its needle-like spines, and the ease with which its joints become detached from their stems and affix themselves to any object which approaches too close, it often appears to have been the aggressor.

## Villain of the Cactus Tribe

By ROY MILLER

**O** *PUNTIA BIGELOVII* is both villain and comedian of the desert. Villain because of the vicious nature of its needle sharp spines which are covered with microscopic retrorse barbs. They enter the flesh of the unwary with ease at the slightest touch but can be extracted only with considerable pain and difficulty. This same viciousness often creates comic situations—for all but the victim. He tries to free himself from one spine only to become more entangled with others and is soon ready to believe all the stories he has heard about "jumping cactus."

Does jumping cactus really jump? Well—your first encounter with these tall, stately rascals will almost convince you that it does. Touch one of the short outer joints and it becomes detached from the plant so easily and the spines go in so convincingly that you almost believe it jumped at you. Many of

the short joints lie on the ground where they have fallen from the plants and are always ready to attack your feet or ankles. They readily penetrate the sides of your shoes and are almost impossible to extract.

Despite the trouble they sometimes cause, a field of *bigelovii* can be an inspiring sight. They are tall, branching plants, growing with a straight stalk three or four inches in diameter and often reach a height of six feet or more. The lower part of the stalk is covered with dead joints brownish black in color, while the top is crowned with many short arms densely covered with straw colored spines which glisten like gold in the sun. Colonies of these plants are found throughout most of the Colorado desert in California and in central and southern Arizona and parts of southern Nevada. The largest colony with the best specimens I have seen is on U. S. Highway 66 in the mountains a few miles west of Needles. Here a forest of "ball cholla," as it is sometimes called, stretches for several miles along both sides of the highway with thousands of large healthy plants.

The flowers are small and rather inconspicuous being greenish yellow nearly the same color as the spines. They bloom in the spring and are followed throughout the summer by the small fruit, which strangely, is completely spineless. The fruits have only a few seeds or sometimes none and natural propagation seems to be by means of the fallen joints striking root.

The stalks of *bigelovii* have a woody cylindric core which remains long after the plants have died and the flesh and spines have weathered away. This wood is too light and brittle to be of any practical value but it is greatly prized by novelty manufacturers. It is made into flower baskets and vases, candle holders, table lamps and many other novelties which are sold in desert trading posts and Mexican curio shops. The lacy texture of this wood makes it ideal for this purpose and pieces of rare beauty often can be obtained.

The golden spined jumping cholla or Bigelow's cholla was named for Dr. John M. Bigelow who collected in the West in 1853-1854 while on the Pacific Railroad Survey under Whipple.



It isn't a common flower, this dainty little blossom that very appropriately is called Fairy Duster—but it is one you'll never forget once you have found it in bloom along the desert arroyos and hillsides. Mary Beal has given a description that will help you identify the shrub when you go looking for it.

## Feathery Dusters for Desert Fairies

By MARY BEAL

HERE are places on the desert where you'll find exquisite little Dusters growing on bushes, and it doesn't require an exceptional imagination to vision them as perfect utensils for keeping the Desert's fairyland all tidied up.

Calliandra, its botanical name, (meaning 'beautiful stamens') is very pleasing and not at all unwieldy for everyday use, but most of us find the pet name "Fairy Dusters" more to our fancy, so happily is it suited to the lovely blossoms.

The Duster bush is low and roundish, one to three feet in height, with spreading pale-grey slender branches and dark-green twice-pinnate leaves divided into very small leaflets, much like those of some of the Acacias, its cousins. But unlike its Acacia (and also Mesquite) relatives, it goes unarmed—not a thorn or prickle on it. Now come the enchanting features, the bright color and ethereal form of the flowers that so gaily adorn the bush. The purplish-red corollas are so inconspicuously small that the blossom has the appearance of being only a bunch of long thread-like stamens, white at the base and shading through bright pink to crimson at the tip. Disposed in close clusters which form showy globose heads, they are like fairy balls of gossamer floss.

Calliandra, with little of the adventurous spirit, keeps more or less within bounds and is absent from large stretches of desert. By good fortune it is locally common in the areas it favors. Most of its preferred resorts are in Arizona but a few eastern Colorado desert locations are graced by its presence, notably in the Cargo Muchacho mountains and the eastern end of the Chocolate mountains. It has also been reported in the San Felipe Wash, at the western border of the Colorado desert. Its domain extends eastward to western Texas and south into Mexico and Lower California. It frequents shallow washes in open canyons or small gullies scooped out of hillsides or flats, generally growing along the banks rather than in the sandy bed of the wash.

In the tropical Americas are a great many species of Calliandra but only one is known as far north as the desert of the United States. This is our winning little friend "Fairy Duster," otherwise known as

*Calliandra eriophylla*

Here are a few helps to identification, just to confirm your recognition of it. You may find it blooming zestfully only 6 inches high, like a miniature bush from Lilliput, or occasionally it attains a height of 3 feet. The tiny oblong leaflets, almost too small to measure, are clothed with appressed hairs beneath and number 5 to 12 pairs to each of the 1 to 4 pairs of pinnae. The rich red corolla is cleft more than half way down into ovate lobes that curl back. The numerous stamens are  $3/4$  to 1 inch



*The Fairy Duster is a perennial that may be in blossom any time from February 1 to the middle of March, depending on the weather. This photograph was taken near the Cargo Muchacho mountains on the Colorado desert of Southern California.*

long, about 3 times as long as the corolla, and united at the base. The reddish-brown calyx is top-shaped, with 5 triangular teeth. The linear flat brown pods  $1\frac{1}{2}$  to 2 inches long, are silvery with dense soft hairs and bordered by a thick cord-like margin of dark red.

The leaves have high nutritive value and are much relished by browsing animals, especially so because of the absence of thorns. The pods too add their quota to the larders of desert fauna. So this sprightly little shrub serves a useful as well as ornamental purpose in real life, in addition to its crop of dainty dusters to help the Fairies with their housekeeping.

### FAIRY DUSTERS

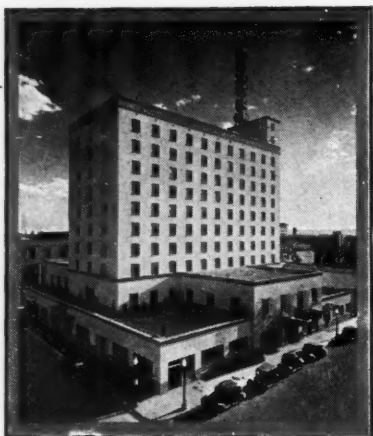
By BERTHAE HARRIS CONVERSE  
Tucson, Arizona

When the dust of the desert goes swirling high,  
And the breeze from the mountain blusters,  
Tucked away in the rocks you'll find  
The flame of the fairy dusters.

And when the storm of dust is past  
The fairies swarm like bees,  
To polish again the molten gold,  
Of the palo-verde trees.

Each desert flower is gently brushed,  
With a delicate lacy cloth,  
And the dust is very carefully saved,  
For the laden wings of the moth.

But the hardest work that the fairies do,  
(And they all must work like bees)  
Is to polish again the molten gold,  
Of the palo-verde trees.



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# LETTERS . . .

## Anyway, It Is a Good Landmark . . . Overton, Nevada

Dear Mr. Henderson:

In the January issue of Desert Magazine is a picture of a large rock on the south shoreline of Mead Lake, Mohave county, Arizona. This photo was the landmark picture.

The March issue of Desert has the same picture with a description of locality, material the rock is made of, and about its size. Mr. McNab who won the contest is about right in his estimate of the dimensions.

But I take issue with anyone who calls it by the name Campanile, although it may look like a bell tower to some. But if you'll take another look on the next boat trip up the lake you will see the profile of the "Little General" (Napoleon).

For more than 50 years the rock has been known as Napoleon's Tombstone. Ask any old-timer in Mohave county, Arizona, or Clark county, Nevada, and they will tell you its name.

FAY PERKINS

*Dear Fay: Napoleon's Tombstone suits me fine. But why in blazes didn't some of you old-timers come through when we were asking for the information and give us the low-down? I hope you can convince the Park service that it properly should retain the old original name.* —R.H.

## Prospecting in Massachusetts . . . Medford, Massachusetts

Gentlemen:

I have only one fault to find with the Desert Magazine—it afflicts me with "itching feet." From the time I read Charles Lummis' articles in old Saint Nicholas magazines I have had a great love for the Southwest—"the only, the one land, beloved of sun and bereft of rain." With every issue of The Desert the love and the longing grows stronger.

I don't know a gem stone from a paving block, but the times I have gone prospecting (from an armchair) with Mr. Hilton are simply scandalous. Good luck, and like our banners—long may you wave.

BERTHA F. MONROE

## We Read It in the Book . . . Fullerton, California

Dear R. H.:

Re Desert Quiz: In March issue No. 11, regarding the composition of the Carlsbad stalactites, if you had included Aragonite I am sure that all mineral collectors would have been more satisfied. There is sometimes a question as to whether the stalactites in Carlsbad cavern might be calcite or Aragonite, but I do not believe they would ever be limestone, as such, which infers a massive material.

Anyway, I got 15 right besides No. 11, which I knew could not be correct. The Quizzes are all right if properly worded, which sometimes they are not.

CHARLES S. KNOWLTON

*Friend Knowlton: Desert Magazine's authority for the answer to No. 11 in the March Quiz is English's Getting Acquainted With Minerals. He says: "Caves are found in numerous sections of the world, especially in regions where limestone abounds. Water percolating through this rock dissolves part of it and then, as it drips slowly from the roof of the cave the limestone is redeposited in forms which mimic icicles and are called stalactites."*

—R.H.

## Third Highest Peak in Nevada . . . Tonopah, Nevada

Dear Sir:

Reference is made to your March, 1942, number, page 45, under the heading "Nevada." You give the altitude of Toiyabe peak, in the Toiyabe range, as "approximately 6002 feet." This is an error. Toiyabe peak is the third highest peak in Nevada and is 11,775 feet, as given by the U. S. coast and geodetic survey.

Mount Wheeler, 13,047 feet, in the Snake range in eastern Nevada, is the highest mountain WHOLLY within the state. Lehman Caves national monument is on the east flank of this mountain.

Boundary peak, 13,146 feet, the northernmost peak of Mount Montgomery, on the Nevada-California line, is the highest point in Nevada. But part of this mountain is over the line in California.

We enjoy the Magazine.

C. C. BOAK

## Vacation in Anza Park . . . Peoria, Illinois

Dear Mr. Henderson:

We have returned from our vacation in the Southwest. You will perhaps remember my visit to your office on several occasions, at which time you suggested visiting the Anza Desert. We found that most enjoyable and the high light of our vacation.

We took the road from Scissors Crossing near Julian to Vallecito Stage Station. There we were going to decide whether to continue or return to the pavement and come back to El Centro via Jacumba and Mountain Springs. At Vallecito we met Mr. Robert Crawford, of whom you spoke. He took a lot of time explaining to us the history surrounding Vallecito. He also suggested that we continue on to Agua Caliente, Carrizo Springs, and Plaster City. We followed these suggestions and were very glad that we did. While at Vallecito, Mr. Crawford pointed out Ghost mountain where Marshal South lives, and I thought I saw a corner of the ramada through the binoculars, but my wife says I imagined that.

As to the Souths we would have liked to have visited them but I know there are hundreds of others of the same mind, and we did not attempt to find the place. I am going to write to Souths telling them how much we enjoy their contributions to the Desert Magazine and that we saw their mountain.

Our next vacation will be spent entirely in the Anza Desert area. In the meantime we will keep a watchful eye on the Desert Magazine. The Desert Magazine and the National Geographic are two publications we will never drop.

WM. H. SWARTZENDRUBER

## She Was a Courageous Pioneer . . . Ely, Nevada

Dear Sirs:

In your October issue of last year you presented a very interesting and true account of the old ghost town of Hamilton, Nevada.

I thought it would be of interest to those who are acquainted with the famous old city to know that the final chapter has been written in the life of a person whose name and memory will always be associated with it.

Mary Shields has passed away. She never lived to see her camp return to the bustling, eager town of the old days. R. A. Dean, friend and co-dreamer of Mrs. Shields, lives on in Hamilton awaiting the resurrection.

QUEY HEBREW



## He Laughed When He Said It . . .

Arlington, California

Dear Sir:

If you and Mr. Lewis Allison of the Mesa Journal-Tribune prefer "Arizonan" to "Arizonian" only because the latter "sounds too much like 'Oklahomian,'" I fear you are riding the wrong bandwagon. Until the final paragraphs of your March editorial shocked my drowsing sensorium into wakefulness, I had never seen "Oklahoman" spelled with an "i." True, it is sometimes pronounced with one, but not predominantly by those who bear the title.

I have long been at a loss to understand the sneering attitude of many Arizonans and Californians (or do you prefer "Californians") toward Oklahomans. Undoubtedly, the advent in recent years of many destitute Oklahomans (or, if you like, "Oakies"), dispossessed of their livelihood by elements and circumstances over which they had no control and seeking employment which was widely advertised in Oklahoma by Californians anxious to exploit their labor, was the major factor contributing to this deplorable attitude. Though I do not personally know any families who made the journey due to such conditions and, in the few months of my sojourn in Arizona and California, have come in contact with none (if, indeed, any have been permitted to survive), I wonder if the characterizations in "Grapes of Wrath" were not more dramatic than accurate. Or, if the "Oakies" were judged by personal contact alone, and fairly judged as a group (which is exceeding doubtful) must they be considered characteristic of Oklahoma?

Now that this "melting pot of nations," which we are proud to call a democracy, is actually on the fire I venture to say that few Oklahomans will be found in either the scum or the dregs of that vessel. Oklahoma will fight for that equality and justice, the true meaning of which some seem to have forgotten. I am proud that my parents pioneered Oklahoma but I consider myself primarily an American. Let us first protect the boundaries of our nation and its possessions and then, if you must, draw the state lines.

JACK (Okie) TAGUE

*Dear Jack: Out here on the desert we don't pay much attention to the names people call us. It is not what folks say, but*

*the way they say it that counts. If you've ever heard a bunch of cow-pokes ribbing each other you'll understand what I mean. I am quite sure Editor Allison of Mesa was grinning when he made the wise-crack about the "Oklahomians"—and if he was, no harm was done. They can't put a fellow in jail for having a sense of humor—any more than for being born in Oklahoma.*

—R.H.

## Discovers New "Rock" Specimen . . .

Winterhaven, California

Dear Sir:

Some time ago when I was in your city I met Ross Tilton at your postoffice. He took me to his home to see his large rock collection. At once I became interested and started out, armed with a prospector's hammer to see what I could find.

I went to Yuha desert, then to Yuma, Indio, Winterhaven, Desert Center, Castle Dome, Picacho and many other places and haven't yet found anything but pretty stones, nothing of value.

But I did find one small round stone that was rather light in weight. I placed it with my

## Weather

FROM YUMA BUREAU

Temperatures—	Degrees
Mean for month .....	57.5
Normal for February .....	58.6
Month's highest, on 5th .....	80.0
Months lowest, on 15th .....	36.0

Rainfall—	Inches
Total for month .....	0.84
73-year average for February .....	0.41

Weather—	
Days clear .....	16
Days partly cloudy .....	6
Days cloudy .....	6

Sunshine, 86 percent (266 hours of sunshine out of a possible 308 hours).

Release from Lake Mead averaged around 28,000 sec. ft. Storage during the month decreased about 1,140,000 acre feet.

JAMES H. GORDON, Meteorologist

## Prizes to Amateur Photographers

Each month the Desert Magazine offers cash awards of \$5.00 and \$3.00 for first and second place winners in an amateur photographic contest. The staff also reserves the right to buy any non-winning pictures.

Pictures submitted in the contest are limited to desert subjects, but there is no restriction as to the residence of the photographer. Subjects may include Indian pictures, plant and animal life of the desert, rock formations—in fact everything that belongs essentially to the desert country.

Following are the rules governing the photographic contest:

1—Pictures submitted in the April contest must be received at the Desert Magazine office by April 20.

2—Not more than four prints may be submitted by one person in one month.

3—Winners will be required to furnish either good glossy enlargements or the original negatives if requested.

4—Prints must be in black and white, 3 1/4 x 5 1/2 or larger, and must be on glossy paper.

Pictures will be returned only when stamped envelopes or photo-mailers are enclosed.

For non-prize-winning pictures accepted for publication \$1.00 will be paid for each print.

Winners of the April contest will be announced and the pictures published in the June number of the magazine. Address all entries to:

Contest Editor, Desert Magazine, El Centro, California.

rock collection in the sun, out in front of the trailer. This morning the lightweight stone was gone, and in its place was a young Gila monster about three inches long. He was sort of pink, large, long tail and rather sassy. He was ready to fight and showed his dislike for human beings.

ROBERT E. HUNT

## Sez Hard Rock Shorty of Death Valley

By LON GARRISON



"See that stone eagle over on top o' Gene Bank's gatepost?" asked Hard Rock Shorty. "That eagle looks real enough to fly—wings ajar, ever' feather in place an' his beak ready to bite your finger off. Durn good job o' carvin', only it ain't carvin'. Reason I know is that I made that eagle myself."

Hard Rock paused so his observers could crane their necks to see the eagle and then look with wonder on the alleged author of the nearly perfect sculpture.

"Was up with Pisgah Bill at his shack on Eight Ball Crick when it rained for four days straight. We didn't dare budge out o' the tent to do more'n get a couple o' sticks o' fire wood. There was a big 'dobe flat out in front o' the house an' that stuff was as sticky as fish hooks with glue on 'em. The last day we was sittin' there lookin' out the door when all of a sudden it stopped rainin', cleared off an' the sun come out. A eagle was flyin' over this flat an' I guess he was pretty hungry. He took a header down to nail a little bird in a bush an' he missed. Stuck both feet in that 'dobe mud an' it was just like quicksand. It pulled 'im under in three seconds.

"Sun come out real hot the rest o' the day an' by the next afternoon that 'dobe field was baked like a anvil. Bill an' me walked over to look where this eagle went in, an' we knocked off a hunk o' 'dobe an' there he is sealed in tight. We lifted 'im out all in one piece. The hole he left was so perfect a mold that we pours it full o' cement an' casts that eagle you just been lookin' at.

"Not only that, the eagle itself was baked just right—in fact we ate 'im for supper."

## VISTA DE ANZA

Winners of Desert Magazine's February Landmark contest were Eva M. Wilson of El Centro, California, and Henry E. Hocker of Calexico, California. They identified the monument pictured above as Vista de Anza on the Yuha desert near the California-Mexico boundary. Both contestants submitted excellent manuscripts, and since each of them included information omitted by the other, the judges decided to award two \$5.00 prizes and combine the stories and present all the facts contained in both of them. The winning entries are published on this page.



By EVA M. WILSON and HENRY E. HOCKER

**VISTA DE ANZA**—a point overlooking Yuha valley on the Colorado desert of Southern California. The name was officially adopted and was proclaimed by Bishop Charles Francis Buddy of San Diego in the presence of the Anza Trail Caballeros the night of May 10, 1941.

On this occasion the monument was dedicated as a shrine in honor of Captain Juan Bautista de Anza whose adventurous path led this way in 1774 and 1775. The cairn shown in the Desert Magazine photograph is to remain as a perpetual marker for this spot.

The ceremony at which Bishop Buddy gave his blessing to the shrine was held by campfire with a cross and an American flag mounted on the monument in the background.

A good desert road leads to the point, 8.4 miles from Coyote Wells. Leaving Highway 80 and crossing the railroad at the old Coyote Wells station, the motorist should follow the road to the south two miles to the Yuha cut-off from Calexico to San Diego; thence east (left) 4.7 miles to the junction with Hocker scenic drive. Turning left on Hocker drive, the road winds through a beautiful desert landscape, pausing at the monument (1.7 miles), but proceeding on to meet the Yuha cut-off again a few miles from the first junction with the scenic drive.

That is the pleasant journey of today.

But 168 years ago Juan Bautista de Anza reached the spot after a wearying and disheartening trek over the last and worst of the desert between Mexico and the Spanish colonies in California.

Two such expeditions from northern Mexico to the coast were made by Anza. The first, January to April, 1774, was undertaken to blaze a trail for transporting colonists overland to found a pueblo at San Francisco. It was on this trip that Anza found six wells near the Yuha wash, where "the water is very good and clear and flows in abundance." He named them Santa Rosa de las Lajas, Santa Rosa of the Flat Rocks. There being good forage near, the party lingered at the wells almost two days for the men and animals to recuperate.

This spot was twice blessed, for it was here, for the first time since leaving the Colorado river, that the explorers knew just where they were. To be sure, Sebastian Tarabal, the Indian guide, and Father Garcés had both traveled in the Colorado desert, but neither knew the landmarks well enough to prevent a great loss of animals and time in the sandhills west of the river. But here at Santa Rosa, Sebastian at last got his bearings, and the success of the expedition was for the first time a certainty. Thus the city of San Francisco here, on March 8, 1774, was assured of an early reality.

Anza immortalized himself on his sec-

ond journey over the same route in the winter of 1775 and 1776, when he headed the expedition of more than 200 San Francisco colonists, "the most heroic task of a single man in the history of the West." Defying menacing sand, scant forage, scarcity of water-holes, and the bitter cold of a heavy mid-December snow, the second Anza expedition arrived at the hospitable wells of Santa Rosa on December 12, 1776, with the greater part of the desert behind them.

This epic of matchless courage, defiance of Nature's death-traps, and paternal far-sightedness hovers in spirit around the Cairn in the Desert and bids the visitor remember.

The marking of the Anza trail at this point was sponsored by the Winter Festival association of Calexico, which is to hold the third of its annual Desert Cavalcade pageants in the border community April 9, 10 and 11 this year.

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## SOMEWHERE IN NEW MEXICO!

Can you identify these ruins?



### PRIZE CONTEST ANNOUNCEMENT . . .

In a picturesque New Mexico valley, surrounded by mountains, the old adobe walls shown in the picture above have been crumbling away for many generations. They were once part of an edifice that played an important part in the lives of the people who dwelt here—and whose descendants still live in that valley.

There is an interesting bit of history connected with these ruins—a story that will interest all students of Southwestern life and lore.

Desert Magazine plans to publish the story of these ruins—and in order to get the most complete information, a cash award of \$5.00 will be paid for the most informative article not exceeding 700 words. The name, location, accessibility by highway and railroad, and all available data both as to the history and present status of these ruins should be included in the story.

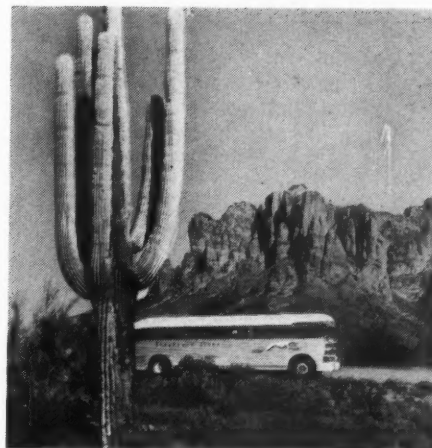
Manuscripts, to be eligible for the prize, must reach Desert Magazine office not later than April 20, and should be addressed Landmark Department. The winning manuscript will be published in our June issue.

### NILAND ROAD TO GEODE AREA CLOSED BY MARINES

Marine guards are now turning back all automobile travel north from Niland, California, on the Niland-Blythe road. The region west of Beal's well and as far north as Chuckawalla mountains has been set aside for target practice.

### OLDTIMER'S VISION

A huge painting, 20x50 feet, that took one year to complete depicts a covered wagon train crossing the desert in 1868 and is on exhibition at Knott's Berry Place on Highway 39 two miles from Buena Park, 22 miles out of Los Angeles. Framed in The Old Trails Hotel of 1868 this remarkable picture with the new lighting effect is dramatized by a two-minute narrative coming from the lips of The Old Timer, a figure setting on the end of the old bar. This amazing picture is a fitting exhibit for the first of many old Ghost Town buildings at the Village, all of which may be seen by anyone without charge. Knott's Berry Place, Buena Park is famous for the excellent chicken dinner and boysenberry pie. Here is published the 32-page illustrated magazine and the current issue pictures and describes this mammoth oil painting. Ten cents sent to Ghost Town News, Buena Park, California, will bring you a copy postpaid.



## Greyhound's BEST to see the WEST

Greyhound covers the Southwest, reaches the scenic, historic places, colorful deserts and romantic cities.

Go comfortably and economically by air-conditioned Super-Coach . . . save rubber and other vital materials. Free literature and information from any Greyhound agent.



**GREYHOUND**

## hand-woven tweeds from OLD SANTA FE

These beautiful fabrics are hand-woven with painstaking care by our skilled Spanish-American weavers from original designs and colorings by Preston McCrossen, Textile Artist. Completely new, extremely distinctive, entirely American. In weights for suits, coats and skirts.

**SPECIAL:** 15 oz., 56" width suitings in Brown, Navy, Maroon, Forest Green, and Natural Dark and Light Gray with Plaids to match, \$6.50 per yard. In writing for swatches please specify color preferred.

**McCrosSEN**  
HAND-WOVEN TEXTILES

SANTA FE NEW MEXICO





Come and See the . . .

THIRD ANNUAL INTERNATIONAL

# DESERT CAVALCADE

April

9-10-11, 1942

of

IMPERIAL VALLEY

## CALEXICO INVITES YOU To the Desert Southwest's Greatest Pageant

Turn back the pages of history and spend three days in Calexico. You'll see sights you've never seen before, for history will be reenacted before your eyes . . . a frontier theme being developed in its frontier stages by the people of one of America's last remaining frontiers.

In the spectacular pageants you'll see reenacted the departure of Anza and his soldiers from the Presidio of Tubac . . . you'll follow them through hardships and triumphs into California, more than 150 years ago.

You'll relive the days of the early colonization period of the great Imperial Valley . . . the march of the famous Mormon Battalion . . . the early gold rush . . . the Jackass Mail . . . the Overland Butterfield Stage Period . . . the days of the early settlers' wagon trains . . . the days of the miner and the cowboy and the fascinating drama of the reclaiming of the desert, with its thrilling episodes of floods and subsequent rebuilding.

Taking part in the pageants, plays and entertainment will be scouts, trappers, miners, cowboys, covered wagons and every other type of character that once explored the great Southwest.

Why the Cavalcade? Just this: Despite the many difficulties and hardships, the early explorers and settlers set

aside a period each year to rejoice . . . cares were forgotten . . . hospitality was the keynote.

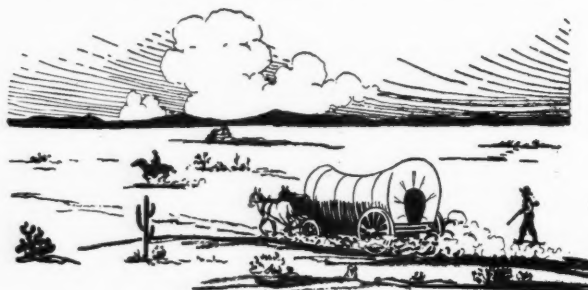


And that is the spirit of the Cavalcade today . . . cares are forgotten, and hospitality reigns supreme . . . You'll enjoy chuck-wagon breakfasts with the Anza Trail Caballeros . . . desert tours to wild flowers, historical points, the All-American Canal and the Sand Dunes . . . You'll go horseback riding over the world's longest bridle path . . . you'll tour Mexicali, just across the border in Old Mexico . . . If you like you'll see a Bullfight in Old Mexico . . . and an international rodeo and barbecue south of the border . . . you'll enjoy a Grand Costume Ball and many other events of gaiety and entertainment.

Come and relive the days of the pioneers! They have gone but in the DESERT CAVALCADE you can still feel their presence . . . they ARE here!

WRITE FOR FREE 100 PAGE DESERT CAVALCADE BOOKLET . . . Contains complete Cavalcade program, story, tourist guide map and suggested trips through this great inland empire. Write to WINTER FESTIVAL ASS'N., Calexico, California.

Winter  
Festival  
Association



Chamber  
of  
Commerce

CALEXICO, CALIFORNIA . . . "ON THE BORDER"



# The Story of Desert Cavalcade...

**I**N THE latter part of the 18th century, Spain sought to consolidate her holdings in the New World by establishing an overland route between Mexico and the west coast of California.

Captain Juan Bautista de Anza was named to blaze a trail from Tubac, Sonora, to Monterey, California. With a small retinue of loyal soldiers and Franciscan friars he began his hazardous journey January 8, 1774.

The route as far as Yuma had been traversed many years before by Father Kino, and more recently by Father Garces, who was one of Anza's companions. But beyond Yuma no man knew for sure what hazards lay in the path.

But thanks to the help given by a friendly chieftain of the Yuma Indians, Captain Palma, the trip across the waterless sands of the Cahuilla basin in Southern California, was accomplished—but not without hardship and suffering.

Having established the feasibility of the route, Capt. Anza a year later made his famous trek over this same route, escorting California's first colonists to the San Francisco bay region.

It is to the credit of the gallant Mexican captain that he made this long overland journey, where in later years hundreds succumbed to thirst and heat and hardship, without loss of a single human life.

Anza was the trail-blazer. After him came the trappers and mountain men, and still later the gold-seekers, Kearny's Army of the West, the Jackass mail, and eventually the engineers and homesteaders who reclaimed hundreds of thousands of acres in the heart of the Southern California desert and created a fertile agricultural empire.

Engineering headquarters, when the reclamation of this area was undertaken, was established on the California-Mexico border at Calexico, not far from the point where Anza passed when he brought California's first colonists to the Pacific ocean.

It was fitting then, in view of the historical background of the community, that the people of Calexico should be the ones to perpetuate the memory of those courageous pathfinders of 1774 and on through the years that followed in an annual historical pageant—the Desert Cavalcade.

This year the third presentation of this pageant will be given. It is a gorgeous spectacle staged in the outdoors entirely by players recruited from all walks of life in the twin border communities of Calexico, California, and Mexicali, Baja California.

Desert Cavalcade not only is a highly colorful panorama of history in the desert Southwest, but its presentation by local talent is a striking example of the high achievement possible when an entire community sets itself to the task of doing something big and worthwhile. The stage settings, the costume designing, the musical numbers, each appropriate to its period, and even the stage direction of the program were carried out practically without help from professional sources—and the acclaim given the presentation the past two years is the best testimony as to the success of these amateur dramatists down on the border—at Calexico.

WHEN YOU COME TO THE ...

## IMPERIAL VALLEY

April 9-10-11

to see the

THIRD ANNUAL  
INTERNATIONAL

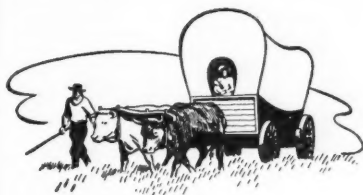


## -- DESERT -- CAVALCADE

at

**Calexico**  
California

"On the Border"



**PLAN TO SPEND** a little extra time exploring this great **SCENIC DESERT WONDERLAND** in the heart of the Colorado Desert. Here you'll find release from the troubles and strife of a war-torn world . . . amid friendliness, peace and beauty.

**YOU'LL FIND THE DESERT AT ITS BEST** . . . in spring-time dress, as you drive through a wonderland of riotous patches of brilliant desert wildflowers.

**HUNDREDS OF POINTS OF INTEREST** await you here . . . With the Salton Sea on the north, Mexico on the south, the mighty Colorado on the east and the blue Sierras on the west, you'll find scenic beauty and historical interest unrivalled anywhere.

**A FEW OF THESE POINTS** are the Anza Desert State Park, the old Anza Trail, early stage coach stations and routes, palm-lined canyons and rugged mountains, long dead ghost towns and very much alive mining districts, gem fields and ancient fossil beds, sand dunes and rich farms, an abundance of desert plant life, and a host of other things.

**A SCENIC MAP OF THE IMPERIAL VALLEY** will guide you on your trip to any part of this great desert region. A note to B. A. Harrigan, secretary, Imperial County Board of Trade, Court House, El Centro, California, will bring the map and further information.

## IMPERIAL COUNTY BOARD OF TRADE

## The Desert TRADING POST

Classified advertising in this section costs five cents a word, \$1.00 minimum per issue—actually about 1 1/3 cents per thousand readers.

### BOOKS

POEMS OF NEW MEXICO, by Roy A. Keech. Impressionistic verses by a Southwesterner. 50c and \$1.00. Autograph Editions. Address, Box 1065, Santa Fe, New Mexico.

### PHOTO FINISHING

6 OR 8 EXPOSURE ROLL enlarged to mammoth Rancho size, 25c; or 16 small prints from roll, 25c. RANCHO PHOTO, Dept. EM, Ontario, California.

### LIVESTOCK

KARAKUL SHEEP—For profit, for investment, as a business or as a sideline, join with many others and raise Karakul Fur Sheep. Authentic information. James Yoakam, 1128 N. Hill Ave., Pasadena, California.

KARAKULS producers of Persian Lamb fur are easy to raise and adapted to the desert which is their native home. For further information write Addis Kelley, 4637 E. 52 Place, Maywood, California.

### MISCELLANEOUS

12 BEAUTIFUL perfect prehistoric Indian Arrowheads, postpaid for a dollar bill. Catalog listing thousands of other relics free. Caddo Trading Post, Glenwood, Arkansas.

FREE—Copy America's largest trapping magazine. Writers: Butcher, Grigg, Dailey—100 others! Send stamp. North American Trapper, Dept. DM, Charleston, West Virginia.

### MAPS

BLACKBURN MAPS of Southern California desert region. San Bernardino county 28x42 inches \$1.00; San Diego county 24x28 inches 50c; Riverside county 50c; Imperial county 19x24 inches 50c; Yuma and Gila river valley 17x27 inches 50c. Postpaid. Add 3% sales tax in Calif. DESERT CRAFTS SHOP, 636 State St., El Centro, California.

### REAL ESTATE

THE DESERT CALLS. Escape to famed, Imperial Valley. \$1000 options choice 18 acre, "Solana," Home-Income-Rancho. 6 rms, furn., shade, elec., cabins, crop. Owner, 422 Juniper Bldg., Santa Monica, Calif.

For Imperial Valley Farms —  
**W. E. HANCOCK**  
"The Farm Land Man"  
Since 1914  
EL CENTRO — — — — CALIFORNIA

# Mines and Mining . .

## Indio, California . . .

Federal engineers apparently have found Eagle mountain iron deposits north of Desert Center large enough to warrant expenditure of \$20,000,000 to build a blast furnace in the Los Angeles area, it was learned by Riverside county officials. Reconstruction Finance corporation is said to have authorized expenditure for a plant which would probably be able to produce 450,000 pig iron tons a year. A contract with the Kaiser Iron and Steel corporation for construction of the furnace and battery of ovens already has been approved by the RFC, it is said. Industrial possibilities of Eagle mountain iron ore was envisioned as early as 1908 by E. H. Harri-man, who put together the Iron Chief group of then some 80 claims and embracing 20 acres, exclusive of four mill-sites. Frequent analysis of ore taken in years since that time, it is said, show it to be high grade iron and low in deleterious elements. Federal engineers have conducted diamond drill core tests. Deposits are estimated to be eight miles long and from one-quarter to two miles wide, sufficient to supply 1000 tons daily for 100 years.

## Tonopah, Nevada . . .

The Tonopah Belmont mine, showing a past production record of nearly \$40,000,000, may be ranked again with the producers. Production of ore from the mine through the re-conditioned Desert Queen shaft is expected to be started within the next three weeks according to T. J. Nicely, resident manager. Considerable good grade silver ore is reported available for operators.

## Needles, California . . .

As part of a federally-sponsored program to develop Southwestern magnesium resources, the bureau of mines proposes construction of a mill at Parker dam. The mill would be one of six established in a program to erect eight customs concentrators, three hydrometallurgical plants including one electrolytic unit, and one matte smelter. These 12 plants would be established at 10 locations in eight states, and would constitute a program to develop domestic manganese production of sufficient scope to free American steel and alloy production from reliance on foreign sources. Tentative locations for the six customs mills and one hydrometallurgical plant using higher grade ores are at Parker dam, California; Deming, New Mexico; Batesville, Arkansas; Philipsburg, Montana; Delta, Utah; Garfield, Utah, and Las Vegas, Nevada, where a leaching plant and electrolytic plant can be established.

## Beaver City, Utah . . .

Only yesterday men in feverish excitement trod the hills of Utah in quest of gold and silver. Today in the Granite mining district just a few miles west of here many prospectors, investors, miners and operators are combing the Beaver hills looking for tungsten. The mining boom is said to be reminiscent of early mining days in southern Utah, when famous Horn Silver mine which has produced millions was in full production. United States Vanadium corporation is interested in four unpatented mining claims in the region.

## Taos, New Mexico . . .

For years now the government has imported Iceland spar from South Africa for use in the manufacture of its famous precision bomb sight. Now it finds that Iceland spar can be mined in appreciable quantities in its own back-yard. "Credit for the discovery goes to Senator Dennis Chavez, who first turned the spotlight on the fact that New Mexico could produce it," declared Ed Stanton, president of Stanton Associates, Inc., New York mining firm that is presently engaged in developing deposits. "Thanks to his efforts for his state and subsequent investigation by our engineers, we find there is enough of the mineral in New Mexico to supply the entire world," Stanton added.

## Reno, Nevada . . .

Prospect work and sampling in an area where cinnabar deposits are indicated at several points in Malheur county, Oregon, is now being carried on under direction of U. S. geological survey and bureau of mines engineers. Possible deposits are indicated at several points near the Bretz quicksilver mine. Similar work is being undertaken by the two closely allied government agencies in a number of Nevada districts, where areas are mapped and sampled.

## Superior, Arizona . . .

Vermiculite may soon have a competitor in perlite, Arizona's newest mineral product. Lee Boyer and associates, who own a deposit of perlite one mile southwest of Superior, are reported to be building three plants to prepare the volcanic glass for market. The process, invented by Boyer, consists primarily of heating perlite to the point where it "pops" and expands to six times its original volume. Resulting white "sand" weighs only four pounds 12 ounces per cubic foot. This is 11 1/2 percent lighter than an equal volume of vermiculite, it is declared. Boyer says one treatment plant with a 100-ton daily capacity will be at Los Angeles. Another of equal capacity will be in Phoenix, and a third, half as large, will be at Las Vegas, Nevada.

## Las Vegas, Nevada . . .

Construction work at the Gabbs valley calcining plant for Basic Magnesium, Inc., is now moving along at top speed with one of four units scheduled to be completed by April 19, it is reported here. It is this \$3,000,000 plant which will treat magnesite before being shipped from the mines 80 miles southeast of Fallon to the nation's largest magnesium reduction plant being built at Las Vegas. First shipments, expected to be ready within two months, will go forward by truck. Later a rail line will be used.

## Independence, California . . .

Capacity of soda products plant of American Potash and Chemical Corp., at Trona, may be almost doubled within a short time it has been announced by company officials. An expenditure of \$1,300,000 is contemplated. Two improvement programs have been started and will be carried forward simultaneously to meet increasing soda ash and salt cake demand created by defense emergency.



# HERE AND THERE... on the Desert

## ARIZONA

### But Not Too Old to Give . . .

FLAGSTAFF—Ulti Nez, Tall Man That Can Count, heard Trader Johnny O'Farrell tell his Navajo people about what white men are doing to aid American soldiers in war against Japan. O'Farrell had staged a free feed for his Navajo friends at his Gap trading post 90 miles north. O'Farrell finished his speech but with no demonstration from his guests. Then a lanky Navajo buck arose, placed his tall crowned sombrero on sandy ground. From all sides money began clinking until \$60 had been amassed for Red Cross. Ulti Nez contributed but he also continued to think a bit. Other Indians promised three sheep each, sale price from these to be given Red Cross. Then Ulti Nez still doing a bit of thinking and under pressure of his wife finally stepped up to O'Farrell and explained how sorry he was that he was too old to go to fight the Japs but that he wanted O'Farrell to go with him and show him how he could spend money to buy defense bonds. O'Farrell came to Flagstaff, meeting Ulti Nez and his wife. He took them to Postmaster George Babbitt, where they purchased \$1,500 in bonds with \$5 and \$10 bills.

### Landmark Must Be Preserved . . .

TUCSON—It's a problem no matter how you look at it. And archaeologists, city building inspectors, park service engineers and transfer company experts are no less perturbed. Cause of it all is two crumbling, carved columns on time-worn facade of Mission San Xavier del Bac. Six companion columns long since have disappeared and final ornaments on 150-year-old mission's face may not last many more sand storms scientists declare. So now they seek to preserve them with stabilizing compounds which sounds simple but which has developed into a "Gordian knot." Columns must be removed, impregnated with solutions on all sides and then refastened to building. How to handle rickety plaster columns with rotting and broken wooden cores has officials stumped. But they promise a speedy decision.

### Rabbit Pelts Increase in Value . . .

SAFFORD—Need for pelts to line aviator's jackets and the fact that cottontail and jack rabbit skins are now bringing 15 cents each may revive old-time rabbit drives of years ago. Fifteen cents each is being paid in Midwestern areas for rabbit pelts since supply of wallaby and rabbit skins from Australia has been cut off. Meanwhile, reports state that office of production management and department of interior's fish and wild-

life department are working on plans to increase farm production of white rabbits and to encourage trapping in West. Poison bait is used to control cottontails and "jacks" in eastern Arizona where they are known as rodents that injure crops and fruit trees. One trapper chewed over possibilities, remarking "Who knows, we may be eating rabbit stew before this thing is over."

### Just 30,000,000 Years Old . . .

CHANDLER—John D. Mitchell, frequent writer in Desert and author of "Lost Mines and Buried Treasures of the Great Southwest," has what he believes to be one of most valuable rock specimens in United States, if not in the world. Deep impressions of human fingers placed against this specimen when it was still in a plastic state more than 30,000,000 years ago are still visible. These prints would seem to prove, according to Mr. Mitchell, that human beings roamed over this continent millions of years before sub-men inhabited Europe, evidence of whose existence 400,000 or 500,000 years ago has been discovered.

### New Ventana Excavations . . .


TUCSON—Further excavations in Ventana cave, an important Southwest archaeological find, will soon move under way. Dr. Emil W. Hauray, head of anthropology department, University of Arizona, has appointed Julian D. Hayden as supervisor of Papago laborers who will do excavation. More than 7,000 years continuous human habitation of Ventana rock shelter 110 miles west of Tucson has been laid bare already. Dr. Hauray believes lower layers of deposits of trash left behind by centuries of men living in shelter contains more challenging materials.

### Arizona to Gain a Gulf Port . . .

AJO—War department may approve a long-awaited highway from Ajo to Sonoyta on Mexican border. Ajo officials believe this would open a new trade route from Gulf of California's Punto Peñasco.

San Carlos lake gained 662,100 acre-feet of water during 1941, despite diversion of 481,889 acre-feet from Gila river for irrigation.

Contracts totaling \$35,030 have been awarded to three manufacturers for power transformers, disconnecting switches, lightning arrestors and other equipment for Phoenix, Tucson and Coolidge substations of Parker dam power project.



*Westcraft*  
and  
*Westwood*  
Write for Information  
**GEORGE T. HALL**  
So. Calif. Westcraft Distributor  
5614 W. Washington  
Los Angeles, California

## in other words

by JOHN CLINTON



LEMME AT IT



I'm handy around the house. I can fix the refrigerator so that it takes a service man only half a day to

repair the damage. I do handy electric wiring that often lasts until the fire department arrives.

\* \* \*

But whenever I raise the hood of the Hispano-Plymouth, I sort of give up! I know there are a million mysterious things under there that are probably wearing out or needing adjustment. But me...I can't tell which!

\* \* \*

But then, I don't have to, on account of the Union Minute Men do it for me. And they'll do it for you, too, if you just utter the simple words, "Stop-Wear! Lubrication."



\* \* \*

For Stop-Wear is no ordinary "grease job." Far from it. For one thing, it's guaranteed in writing 1000 miles against faulty chassis lubrication. Besides you don't have to keep track of your mileage, the Minute Men do it for you—even the 3000 and 5000 mile checkups are automatically called to your attention.

\* \* \*

And even though they use factory specifications, 9 different lubricants, and a whole bench full of special tools, the big thing to me is—they check all the mysterious things that worry me—fan belts, battery cables and terminals, spark plugs, wheel bearings, and that sort of thing.

\* \* \*



So, give up your nail biting and worrying over car maintenance and let the Union Minute Men give you

car Stop-Wear Lubrication, too. For the Minute Men give you "Expert Care To Save Car Wear."

## CALIFORNIA

### Rubber Plants Suggested . . .

BANNING—This district may find in Vergata milkweed a substitute money crop for many hundreds of acres of orchards that have been removed within recent years because trees were too old to yield a profit. This plant logically meets this nation's need for a rubber substitute, according to D. B. Lewis of D. B. Lewis company, brokers and industrial engineers of Los Angeles. Vergata rubber can compete successfully with par-rubber from Sumatra and East Indies islands when peace returns, Mr. Lewis states. It can be produced here for approximately 6 cents a pound while it requires 12½ cents a pound to produce it in Sumatra, he declared.

### Marines Have Desert Base . . .

NILAND—Members of Uncle Sam's "soldiers-of-the-sea" have arrived and are making preparations to erect a \$3,390,000 training base on a slightly location overlooking Salton sea. For accommodation of workmen one of Niland's large auto camps has been taken over. One of first structures to be erected will be a plant to supply water from Highline canal. This base will dominate something like 200,000 acres of desert land and mountain country reserved for military purposes.

### Less Water, Less Trouble . . .

BLYTHE—Needles isn't alone in its trouble from flooding Colorado river waters. Palo Verde irrigation district officials and a number of valley ranchers are sighing with relief now that bureau of reclamation officials have decreased Boulder dam discharge from 35,000 second feet to 25,000 second feet. River waters had been threatening damage to canal and levee systems.

### All the Way on American Soil . . .

EL CENTRO—Colorado river water now reaches fertile Imperial Valley flowing for first time over American soil throughout its entire journey. Officials cut All-American canal loose from Mexican system February 17, when final cut-over at Wisteria heading west of Calexico was made, L. J. Foster, bureau of reclamation engineer, announced. Until that date a portion of Imperial Valley was served with water through Mexican system. Flow in 80-mile long canal is now 5,100 second feet. Work is continuing on a section of Coachella branch but no new contracts are to be let for duration of war.

### Federal Aid Assured . . .

INDEPENDENCE—Two roads in this area will be built now that federal assistance has been assured. Reconstruction of Pine creek canyon road through to U. S. Vanadium and a road through southern end of Saline valley are included as two vital routes necessary to speed delivery of vital tungsten metals from U. S. Vanadium area and valuable salt, talc and other defense minerals from Saline valley. Congressman Harry Englebright stated, "Final approval has been given by forest service, war department and bureau of public roads to make available \$100,000 for cooperative fund to reconstruct Pine Creek canyon road into Inyo national forest."

### Priority Given Davis Dam . . .

NEEDLES—Bureau of reclamation officials at Denver have called bids on construction of \$41,200,000 Davis dam and power plant 28 miles north of this community. Because of war shortages Davis dam is not on deferred list. Rather, its initial planned production of 180,000 kilowatts will aid in

meeting a critical power shortage. Consequently project has been assigned an A-2 preference rating, W. L. Netherby, editor of Pacific Road Builder and Engineering Review, has revealed. From cost standpoint, Davis dam will dwarf many other Colorado river projects including Parker, Imperial and Laguna dams, Mr. Netherby pointed out. It will be used to produce power, for navigation improvement, flood control, irrigation and municipal water supply. In addition by regulating river flow in 67 miles between it and Boulder dam, it will allow Boulder outlets to be operated for maximum power production in coordination with rapid fluctuations in demand.

Flax growers of Imperial Valley will receive higher bonus this year than last with a 25-cent award per bushel, two cents more than last year's average reports Argyle McLachlan, secretary-manager of Southwest Flaxseed association.

There will be no Ramona outdoor play this year. Directors of Ramona pageant association at Hemet voted 5 to 4 to cancel 1942's Ramona outdoor play season in a reversal of a decision made earlier when managers were authorized to proceed with plans for production.

## NEVADA

### Feed for Hungry Bees . . .

RENO—Apriarists of this area had pretty lean pickings last year when a shortage of nectar-producing blossoms was noted. But now they needn't worry about getting enough sugar to feed their hungry bees, agricultural authorities state. Bee-keepers may buy 80

# TWO BLADES OF GRASS . . .

## . . . All the Monument a Great Man Wanted

Many years ago, during the period when the future of the Imperial Valley was vague and uncertain, Charles Robinson Rockwood, who has since become known as the "father" of this mighty inland empire, said, "If I could cause two blades of grass to grow where none had grown before, it would be all the monument I would want." And it was his dogged determination which is responsible for this great valley today.

Rockwood caused his "two blades of grass" to grow. His dream became reality, and today those two blades — WATER AND POWER — stand, not only as a glorious monument to his achievement in bringing them to a desert wasteland, but also as a tremendous contribution to the defense of our nation.

It is IMPERIAL IRRIGATION DISTRICT WATER AND POWER that makes it possible for the Impe-

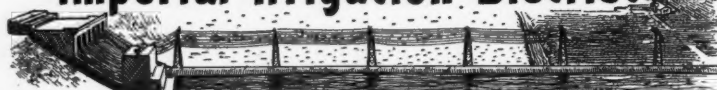
rial Valley to contribute millions of dollars worth of foodstuffs and livestock to America at a time when the need to produce them is the greatest in our history.

WATER AND POWER, now a gigantic defense industry . . . truly two blades of grass are growing where none grew before.

And Imperial Irrigation District WATER AND POWER BELONG TO THE PEOPLE OF THE IMPERIAL VALLEY. The profits from the operation of this water and power system revert wholly to their benefits. It is to their interests to see that Rockwood's "two blades of grass" continue to grow and thrive.

It is the goal of the Imperial Irrigation District to repay the entire cost of the All-American Canal through the sale of electrical energy. The success of this program is possible only through the complete loyalty of the residents of this area.

## Imperial Irrigation District



Use Your Own Power—Make it Pay for the All American Canal



percent of amount of sugar they bought last year, and if they use all of that then they still have opportunity to obtain more if they will write to A. E. Bowman, chief of sugar section, war production board, Washington. Nevada has 12,500 bee colonies which produced 600,000 pounds of honey last year.

#### No Retreading Needed . . .

GOLDFIELD—Prospectors in Nevada are not worrying about the shortage of rubber. They still have their burros. A couple of veterans from the hills jogged down main street recently with their outfit consisting of bedrolls and frying pans drawn by a team of desert donkeys. "We've had all kinds of offers," they said, "from folks who wanted to swap their high-powered cars for this outfit, but we know when we are well off. A burro will eat anything, and besides she doesn't have to be retreaded. And a man never had a more faithful friend than his burro."

#### Rail Lines May Be Rebuilt . . .

HAWTHORNE—Proposals to rebuild an inactive narrow gauge railroad line from Mina to Keeler, California, to standard gauge width are being heard here. Construction of magnesium refining plant near Las Vegas and calcining plant north of Luning in Gabbs valley, where magnesite ore for Las Vegas is to be mined, gave impetus to talk of southern Nevada railroad revival. It has also been proposed to rebuild an abandoned line from Goldfield to Beatty to permit rail shipment of ore direct from Luning south to Las Vegas. Nothing definite has come of this.

As of December 15, 1941, bureau of reclamation workers on Boulder dam will receive substantial wage increases, according to Senator Berkely L. Bunker.

Anglers of Nevada look to a bright future. Nearly a million brook and rainbow trout are being reared at Smith Creek hatchery west of Austin. This number will furnish sport for anglers of Lander and neighboring counties in Nevada.

#### NEW MEXICO

#### Necessity is the Mother, etc. . . .

ALBUQUERQUE—They didn't have any scales. But they did have some scrap metal that needed weighing before they gave it to government officials. So they utilized a school teeter-totter. A woman of known weight was placed at one end and chunks of metal piled on opposite end to balance. This procedure was followed until five tons were weighed. Navajo Indians who figured this system out used \$75 received from collection to purchase defense bonds and stamps.

#### Mountain Killer Strikes . . .

LAS CRUCES—Mountain lion raided a goat pasture a mile west of here killing three goats and clawing two others. Guadalupe Baca, owner, said his dogs chased marauder away.

#### Committee Approves Rubber Bill . . .

ALBUQUERQUE—U. S. senate military affairs committee unanimously approved bill to plant 75,000 acres of guayule plants anywhere in western hemisphere. Plants, which are to be used for rubber production, are to be cultivated at a cost not to exceed \$2,000,000. This bill is designed to cover objections of a recent bill vetoed by President Roosevelt because it provided cultivation of guayule plants only in this country.

#### Kit Carson III . . .

SANTA FE—Kit Carson's grandson is gloomy. He sought enlistment five times in recent weeks, three times in army, once in navy and once in marines. Each time he was rejected because he is only five feet tall. Young Kit said, "I really want to go to war. I've tried everything I can think of. I'll go anywhere." Naval officials have announced they are trying to obtain waivers on young Kit's height so he might be accepted as a sailor. U. S. army officials have named a new cantonment "Camp Carson."

#### New Mexico Climate . . .

ALBUQUERQUE—This city had sunshine 71 percent of time possible last year, Albuquerque weather bureau officials have announced. It had 115 clear days, 120 partly cloudy, 130 cloudy, 93 on which precipitation fell and 26 when snow fell. Total rainfall for year was 15.88 inches including 5.8 inches of snow. Growing season was 206 days long.

#### Teacher Shortage Looms . . .

SANTA FE—Mrs. Grace Corrigan, state superintendent of schools, is now registering persons eligible to teach in New Mexico, and is notifying all local and county superintendents of a canvass of available teaching personnel. Shortage of teachers is anticipated.

#### Traffic Holds Up . . .

ALBUQUERQUE—Hopes of state tourist bureau for a moderate influx of tourists this summer apparently haven't been dimmed by war. Its hopes find support to some degree by traffic counts and by reports of revenue bureau showing gasoline tax collections to be holding up. Some citizens and

tourist camp proprietors say business has declined, however.

Bandelier national monument was opened to public March 1, after having been closed during December, January and February. Roads have been in good condition during winter. Frijoles Canyon lodge will not open until later in season.

Ernest Thompson Seton, 82, who lives at Seton Village, New Mexico, suffered cuts on his head in an automobile collision recently. Mrs. Julia M. Seton, his wife, their son, Jackie and two other children were not hurt.

#### UTAH

#### Power Plant Proposed . . .

VERNAL—Construction of power dam at Echo canyon on Green river northeast of Vernal is now being supported actively by Utah and Colorado congressional leaders. They expect to take this plan up with secretary of interior.

#### Utah Liquidates Killers . . .

SALT LAKE CITY—Predatory animals of Utah are finding it tough going—for 16,000 deer and sheep-killing marauders are being liquidated annually. Mark Anderson, head of Utah fish and game department reports that constant vigilance is waged against lions and coyotes who feed heavily each winter on deer and each summer on sheep. Utah state department annually contributes \$5,000 toward this program and a total of about \$150,000 is expended by cooperating agencies each year. Anderson also reported that in some localities, roving dogs are doing more damage to deer than are coyotes and cougars.



**3**

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10-56A

## Army Takes Testing Area . . .

SALT LAKE CITY—"Dugway Chemical Warfare Proving Grounds," has been established in Utah by war department officials. Total of 150,000 acres of western Utah federal range lands have been turned over for this project. It will be under supervision of chief of chemical war service. Lieutenant Colonel J. R. Burns will be in command.

## ANSWERS TO TRUE OR FALSE

Questions on page 10.

- 1—True.
- 2—False. There is no basis of truth in the old superstition.
- 3—False. One of Anza's guides was Sebastian Tarabul, Indian who had escaped from San Gabriel mission and made his way across the desert to Yuma.
- 4—False. Gypsum predominates in the White Sands.
- 5—True.
- 6—False. Dates were brought to America from the old world deserts.
- 7—True.
- 8—True.
- 9—True.
- 10—True.
- 11—False. Shivwitz is an Indian reservation in Utah.
- 12—False. Headquarters for Boulder dam recreational area is at Boulder City.
- 13—False. Desert mistletoe usually grows on mesquite or ironwood, never on Joshua trees.
- 14—True.
- 15—False. Katchinas are made by the Hopi.
- 16—True.
- 17—True.
- 18—False. The black mineral is hornblende.
- 19—True.
- 20—True. Santa Fe trail from Missouri to Santa Fe was being used by traders and trappers in the early 19th century. Butterfield trail was established in 1856-57.

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## Sheep Protect Themselves . . .

SALT LAKE CITY—One western sheep grower is keeping wolves and coyotes away from herds by training sheep to pull small carts containing life-sized scarecrows, reports U. S. grazing service.

## Heavy Rains Fall . . .

SALT LAKE CITY—Rainfall in Utah during 1941 was heaviest in 50-year history of weather bureau, exceeding 1909 record by 1.51 inches average.

## Utah Wagon Fete Planned . . .

SALT LAKE CITY—This year again Utah will hold its annual celebration, "Utah Covered Wagon Days." Nature of celebration will be left undecided pending possible changes in international situation. Gus P. Blackman, who was elected president of director's board, said this celebration will center as usual upon Pioneer day, July 24, but dates of fete were also left open.

## Elk Planted . . .

VERNAL—Nine elk including three cows, five calves and one bull have been planted in Ashley forest near Vernal after being transported from Nebo district by Utah's fish and game commission. At present time state officials are conducting a count of elk in Utah by plane. Inside this forest service plane two men tediously count as they pass over hills and valleys. Fish and game authorities seek to build Utah's elk herd to 10,000 mark. Now it is believed to be about 5,000.

Salt Lake real estate board set an all-time January record this year when 157 sales involving a turnover of \$731,578 were recorded.

Norman Nevills of Mexican Hat Lodge in southern Utah has been notified of election to membership in The Explorers' club of New York City. It is understood that Mr. Nevills is one of three Utahns to receive this honor.

Dr. Owen P. Heninger on February 27 was appointed superintendent of Utah state hospital. He had been acting superintendent since January 11.

Four thousand students at the University of Utah observed Founders' Day on the 50th anniversary of the starting of the university on February 27.

First 1942 expedition on the Colorado river is scheduled for the latter part of March according to Norman Nevills who is to operate the boats. A group of Grand Junction, Colorado, business men have chartered the trip which is scheduled to go as far as Lee's Ferry.

Utah wool growers have been assured by the WAS production board there will be an ample supply of burlap bagging to handle the 1942 wool crop.

WPA workers constructing a loop road around the high mesa between St. George and Santa Clara recently have uncovered many Indian artifacts. The new road will open an isolated area where numerous Indian petroglyphs are seen on the rocks.

## Last Call for Cover Photographs

Photographers, both amateur and professional, still have time after this issue of Desert Magazine comes off the press, to mail in their entries for the annual photographic contest announced last month.

For the winning cover picture submitted before April 1 a cash prize of \$15.00 will be awarded, \$10.00 for second, and \$5.00 for third.

The contest is limited to desert pictures, and may include a wide range of subjects. We are especially interested in close-ups of desert wildlife—animals, reptiles, birds and shrubs. Human interest pictures will also be favored—Indians, prospectors, campers, etc. Any subject that belongs essentially to the desert will be acceptable. Following are the requirements:

1—Contest is open to both amateur and professional photographers, with no restriction as to residence.

2—Prints should be approximately 9x12 inches, glossy **black and white**, unmounted, with strong contrast. We prefer pictures so composed that the Desert Magazine masthead lettering may be imposed on the photograph without trespassing on the main subject. Neutral shades should be avoided as far as possible in the upper three inches of the picture. We prefer dark shades at the top on which we can impose lettering in light-colored inks, or light background on which we can print dark inks, to secure the needed contrasts. We are seeking pictures only—do not send in prints carrying printing or lettering of any kind.

3—There is no limit as to the number of pictures submitted by a contestant. Prints must reach the Desert Magazine office by April 1, 1942.

4—Judges will be selected from the editorial staff of the magazine, and winners will be announced and prize checks sent out within 10 days. The Desert Magazine reserves the right to buy non-winning pictures submitted in the contest at \$3.00 each. Non-winning pictures will be returned only if postage accompanies the entry.

This contest is independent of our regular monthly photographic competition for amateurs. In order that entries in the cover contest may not be confused with pictures in the regular monthly contest, they should be clearly marked: **COVER CONTEST, DESERT MAGAZINE, EL CENTRO, CALIFORNIA.**



# Gems and Minerals

This department of the Desert Magazine is reserved as a clearing house for gem and mineral collectors and their societies. Members of the "rock-hound" fraternity are invited to send in news of their field trips, exhibits, rare finds, or other information which will be of interest to collectors.

—ARTHUR L. EATON, Editor—

## EXCISE TAX APPLIES ONLY TO RETAIL SALE OF GEMS

Following quotation from a letter addressed to Warner & Grieger of Pasadena by D. S. Bliss, deputy commissioner in the office of internal revenue, will clear up the question of excise taxes to be levied in the sale of semi-precious minerals: Commissioner Bliss wrote:

"Reference is made to your letter requesting information relative to the retailers' excise tax imposed under section 2400 of the International Revenue Code, as added by section 552 of the Revenue Act of 1941, as it applies to semi-precious stones.

"It is held that tax under the above mentioned section of the Code is imposed on the sale at retail of all precious or semi-precious stones, regardless of whether cut or uncut. Therefore, sales at retail of semi-precious stones in the crude form as dug from the ground and sawed slabs or partially finished gem stones are properly subject to tax.

"It should be noted that the tax imposed under the above mentioned section of the Code is applicable only when the articles enumerated thereunder are sold at retail. A sale at retail is a transfer of title to property from a vendor to a vendee for the latter's use but not for resale. Therefore, unless the rough stones are sold at retail no tax will be due."

Pacific mineral society announces the election of the following: Dean M. DeVoe, president; N. L. Martin, first vice-president; W. C. Oke, second vice-president; Maud Oke, secretary-treasurer; Harold E. Eales, field trip chairman; R. L. Cotton, O. B. Pickett, directors.

## STRATEGIC MINERALS

### MAGNESIUM

Although long known to chemists and other scientists, magnesium has only recently sprung into public attention. Manufacturers know it as a very light metal used in aluminum and other alloys, in flash light bulbs for photographers, fireworks, etc. Western prospectors find the metal in such minerals as dolomite, magnesite, amphibole and pyroxene, but can find few or no buyers, as almost the entire American supply is taken from brines of salt wells in the form of magnesium chloride.

More feared at first by civilian populations in Europe than high explosives were the little incendiary bombs of almost pure magnesium. As they land, a small device ignites them into an intense white inferno of flame. Under a stream of water, they only burn more intensely and often explode with a sharp intonation, spreading blistering fragments far and wide. However, they can be removed from a house, with more or less safety, in a pail of sand or gravel. Once outdoors, a light spray of water causes the bomb to burn itself out rapidly. It cannot be extinguished safely by any common means.

## ODD GYPSUM SPECIMENS FOUND ALONG CANALS

Along the canal banks in Imperial Valley are sometimes found small balls of gypsum which are quite attractive and unique. They range from one half to one inch in diameter and are really little clusters of sharp edged blades. Their color is tan to cocoa brown. Gypsum is only two hardness and is very brittle, so that these balls break very easily. Proud possessors often keep them in small boxes lined with cotton.

## New and Improved . . .

# Drum Sanders and Felt Buffs

Here is a NEW TYPE DRUM SANDER that is sure to make the sanding of flat slabs and cabochons a lot of fun instead of a lot of work. The regular "wedge" and resulting wide gap in the surface of the sander have been eliminated. Here are a few of the reasons why you will find this sander far superior to any other type of "drum sander."

Wheels are made from top grade plywood impregnated with shellac to prevent warping. Two-inch drums have 16 layers, and three-inch drums have over 30 layers of best quality wood. All layers glued together and finally nailed. Nail heads countersunk, holes filled, and all surfaces carefully sanded. Working surface of "Drum Sander" covered with fine quality felt to give proper resiliency.

A new coating of cloth may be applied in less than half minute. Sanding cloth firmly held in place with a tapered peg in side of drum. Elimination of wedge in face of drum leaves a smooth working surface. In applying cloth you do not have to wet back surface to stretch out wrinkles and as a result the drum is ready for use as soon as cloth is replaced. You use the entire surface of the cloth which makes this the most economical of all sanders. All these advantages at the price of "old type" disc and wedge type drums. (Note: These Drum Sanders and Polishers are so constructed that they may be used on any type of grinding arbor.)

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This brand new type polishing buff gives you the working surface of a buff that would cost \$9.00 in a solid felt buff. Polishing surface is covered with finest quality "all wool" BY-FIELD FELT. Above drums are available with 1/2-in., 5/8-in., and 3/4-in. arbor holes.

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## AMONG THE ROCK HUNTERS

Grab bags made up of specimens donated by members help replenish the exchequer of Long Beach mineralogical society.

At the directors' meeting of Long Beach mineralogical society, held in the home of N. W. Rockford, Bellflower, the society voted to offer their services as a group to Uncle Sam in his search for new deposits of strategic minerals. The plan is for each mineral club to have a certain area which it would prospect completely for all possible minerals.

Victor Arcienega addressed Long Beach mineralogical society on strategic minerals,

their occurrence and association. Field trips are a problem these days. "The spirit," writes B. Schlagenhauff, Long Beach, "is willing, but the tires are weak." Long Beach club, however, plans a trip to the Chocolate mountains area, as a sort of final fling.

Irving S. Fritzen of the Santa Fe railroad showed a technicolor sound film at the February meeting of Santa Monica gemological society. C. D. Horton exhibited a piece of flexible sandstone from India, the 15-inch specimen rippled like a sheet of pliable metal when held by one end and shaken. The Santa Monica group enjoyed a "de luxe" field trip February 8 at the home of Vern Cadieux, president. Specimens were provided by C. H. Chittenden who has joined the armed forces.

Twelve Imperial Valley gem and mineral club members made a field trip to Chuckawalla mountains and Graham's pass, February 21-23. Good specimens of sagenite and geodes were obtained.

Sequoia mineral society has elected the following: Tom Goff, president; Capt. Wilfred Dressor, vice-president; Nellie Peterson, secretary-treasurer; Mabel Andersen, assistant secretary; Dora Andersen, federation director; Jesse McDonald, Frank Dodson, Florence Chapin, Forrest Minch, board of trustees.

Dora Andersen, Parlier, suggests that rock societies plan to buy some "jeeps" after the war for club use over bad roads.

Los Angeles mineralogical society enjoyed a colored motion picture on the Chilean nitrate industry at the February 15 meeting. A field trip was made to Elsmere and Lang canyons to collect anorthite, ilmenite, and pleistocene fossils.

Searles Lake gem and mineral society raised \$352 for the Red Cross by sponsoring a 49'er party. Hiking clubs have been organized within the society in order to circumvent the rubber shortage. Canyons leading out of Searles basin offer much unexplored territory close at hand.

Charles H. Reed of San Diego county bureau of mines was February speaker for San Diego mineral society. This group holds its meetings in the natural history museum located in Balboa park. The government has occupied the park, but granted special permission to the society to continue meetings.

Pre-Columbian Indians in the Gila river valley, Arizona, were rockhounds, too, as evidenced by chips and pebbles found in the ruins.

Dr. John Herman, assayer and chemist, addressed West Coast mineral society on strategic minerals, showing samples of the first pour of magnesium made on the Pacific coast.

Officers of Sacramento mineral society are: F. L. Milne, president; W. A. Gilkey, vice-president; L. C. Follette, treasurer; Mrs. Thelma Roper, librarian; Mrs. Geo. Hinsey, secretary; J. B. Nichols, publicity; Mrs. A. A. Thomas and G. F. Winslow, directors; T. H. Moon, federation delegate. H. L. Leonard, agricultural commissioner of Calaveras county, entertained the Sacramento group with colored films of Murphy and the moaning caves of Calaveras county and of the famous jumping frog derby.

Earl L. Calvert, Wendell O. Stewart, and Ernest W. Chapman gave a kodachrome illustrated talk on a field trip to old Mexico at the February meeting of mineralogical society of Southern California.

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**CUTTING AGATES,** Woods, Limb Sections, Minerals, Fluorescent minerals, \$1.00 orders up. Write for prices. Bishop Agate Shop, North Bonneville, Washington.

Mojave mineralogical society is building up a collection composed of best specimens found on each field trip. This collection will be publicly displayed in a cabinet in the hall of the forestry building. The society is taking up a study of strategic minerals. As a project, all strategic minerals of the Mojave area are being located, and a record made of their exact location, that they may be available if needed.

The 1942 directory of Northwest Federation of mineralogical societies lists 1200 members of 25 societies of Idaho, Montana, Washington, Oregon and Wyoming. The directory is distributed free to members. Anyone interested should write D. M. Major, Tenino, Washington.

Orange Belt mineral society officers for 1942 are: R. A. Crippen, president; Verne L. McMinn, vice-president; Ada Ranney, secretary; Virginia L. Ashby, treasurer; Kenneth Garner, program chairman; Fay Hamilton, social chairman.

Dr. Geo. F. McKee is collaborating with Mr. Iden in the jewelry making class of Northern California mineral society.

W. L. Cozzen of Fairchild Aerial Surveys, Inc., addressed San Fernando Valley mineral society on aerial photography mapping and its use in modern prospecting.

Golden Empire mineral society, Chino, California, announces the following officers: Genevieve E. Jezler, president; Russell Beale, vice-president; Leah Y. Jezler, secretary-treasurer; Mary Meakin, librarian; Howard Little, federation director; Irving Bedford, Harry Boblet, Thomas Balch, directors.

Kern county mineral society has indefinitely postponed field trips.

Prof. E. V. Van Amringe is giving a course in prospecting at Pasadena junior college.

Klamath mineral club, Klamath Falls, Oregon, has elected the following officers to serve during 1942: J. C. Cleghorn, president; Wm. B. Yates, vice-president; Kenneth McLeod, secretary-treasurer; D. V. Kuykendall, J. W. Shook, Ray Tetlow, Edith McLeod, directors. Due to inclement weather, activities of the group have been confined to regular monthly meetings, held last Tuesdays of each month.

Imperial Valley gem and mineral society plans a party May 2 to celebrate its third birthday.

Dr. Frederick Pough gave an illustrated lecture on colored plates in old mineral books at the March 3 meeting of New Jersey mineralogical society, Plainfield, New Jersey. The March 15 gathering was devoted to identification of Franklin minerals.

Rockhound Record, mineralogical society of Arizona publication, lists 25 February visitors coming from all parts of the nation. Eighty-five members and guests enjoyed William B. "Uncle Billy" Pitts' display of agate slides, mounted on stones and opals. Dr. William B. Colburn, curator in mineralogy of Cranbrook institute, spoke at the March 19 meeting. The first gathering in March was a social affair. Officers of the organization are: A. L. Flagg, president; Luther Steward, vice-president; Dr. Geo. McKhann, secretary.

Jess Roeder reports finding agate near Custer, New Mexico, and carnelian near Las Vegas, Nevada.

Stanley R. Blake, secretary of the Southern Arizona mineral society, reports that the February 17 meeting of the society was held in the engineering building of the University of Arizona in Tucson. Dr. F. W. Galbraith of the university staff spoke on "Minerals of the Mammoth district." The very notable mineral collection of the university was open for inspection.

## Cogitations . . .

Of a Rockhound  
By LOUISE EATON

• Altho all the country now runs on war time, the desert still observes God's time.

• The desert is a satisfactory place to let off steam in. Around campfire, or in shade of palos verdes, fokes can air their grievunces, talk out disagreements, tell how they'd run the government, 'r win the war. They can talk to their heart's content, cuz the other fella won't listen mutch anyhow. He's thinkin' out his own purplexities 'n lettin' the quietude of space filter into his heart too.

THE 304 D. C.  
— 6 VOLT —

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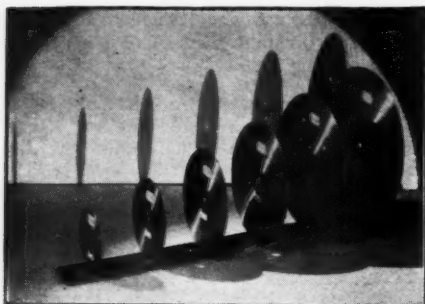
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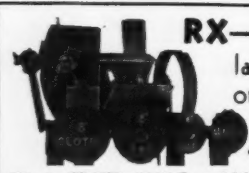
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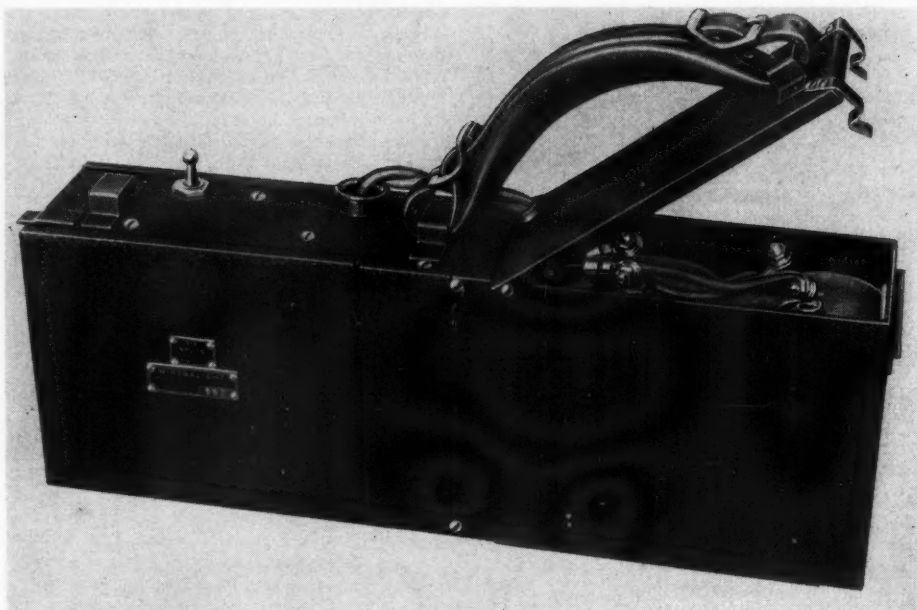
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Products, Inc., 5205 Santa Monica Blvd., Los  
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Designed for use by prospectors, mineralo-  
gists and collectors, the new model operates  
with a cell in a built-in compartment, and fea-  
tures a built-in regular flashlight in addition  
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at will, thus permitting him to look carefully  
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and upon encountering them to check up at  
once with the black light.

A collection of 20 labeled minerals is sup-  
plied with each lamp for the benefit of the user.

Mineralight weighs 7½ pounds, including  
two six-volt lantern batteries. It will detect  
Scheelite as far as 10 feet away. The small bat-  
teries will operate the lamp for from 15 to 20  
hours.

Hazel Goff is the new editor of Sequoia  
bulletin. She succeeds Virginia Breed, whose  
assistant she was. Sequoia turns out a newsy  
sheet.

## IT'S A CLOSE RELATIVE OF COMMON LIMESTONE

Many American prospectors, judging from  
appearances and even simple tests, class dolo-  
mite as a limestone and let it go at that. In fact,  
it is a close relative of limestone, in which  
magnesium replaces half of the calcium. Dolo-  
mite is widespread over the United States as a  
rock forming mineral. It is white to grey in  
color, about one half point harder than calcite,  
but of nearly the same specific gravity as quartz  
or limestone.

The region around Joplin, Missouri, fur-  
nishes dolomite in the form of bright pinkish  
crystals. These are almost microscopic rhombo-  
hedrons, joined together in such a way as to  
form curved, saddle shaped crystals thickly coat-  
ed on massive dolomite or other rock. Dolo-  
mite is a carbonate, but does not effervesce  
readily in cold hydrochloric acid as does cal-  
cite, but, when the acid is heated, the action is  
instant. This is the simplest test to distinguish  
the two carbonates.

Sam Robinson, Harold Flood, Gladys Trask  
and Lon Perry comprise the committee in charge  
of the county fair exhibit of Imperial Valley,  
California, gem and mineral society. A. L. Eaton  
is chairman in charge of the club's exhibit at  
Calexico during the International Desert Caval-  
cade, April 9-11.

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# BOOKS OF YESTERDAY AND TODAY

—a monthly review of the best literature of the desert Southwest, past and present.

## TAOS PROVIDES SETTING FOR NEW MEXICAN NOVEL

IN THE NIGHT DID I SING is the first volume of an ambitious tetralogy of Taos, New Mexico, and the strange mixture of Mexicans, Indians, westerners and artists with their opposing cultures that influence the life of the little community.

Taos, itself, might be an impressionist's conception of New Mexico, with characteristic highlights assembled upon it as upon a single canvas, so well defined are the various layers of civilization to be found in the one village. In his story, O'Kane Foster has caught something of this feeling. He presents life in panorama, in love story after love story. The characters run the gamut from lowly Mexicans to materialistic Americans. The author's sympathies at times touch on the sentimental as he approaches the theme of his novel, the Mexican's problem in a land where his deeply rooted life has felt the withering influence of a new civilization. But the story is readable even though both humor and pathos grow a bit lusty in spots.

Scribner's Sons. 323 pp. \$2.50.

—Marie Lomas

## RODEO THRILLS CAUGHT IN BOOK OF PICTURES

When rodeo time comes the Old West lives again. For color and drama perhaps no sport in America holds more allure. Max Kegley, in his little book of pictures, *RODEO*, has caught the magic of the sport. His fast-action camera has stopped broncs in mid-air and branded for his readers the tense moments of roping and bulldogging more vividly than the most adept writer could have in pages. Terse as a cowboy's speech are the short paragraphs which accompany the sets of pictures, telling the history of rodeo and explaining the system of scoring. Recent champions are introduced in action-filled pictures.

Those with an interest in history will enjoy this brief study of a sport that grew with the range country, sportsmen will thrill to the toughness and skill the pictures display and ordinary rodeo fans will appreciate the book for its clear explanation of the rules governing the events.

Published by Hastings House. 64 pages. \$1.00.

—Helen Smith

## MR. AND MRS. LARRY COKE'S story of . . .

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## AUTHOR SEES THREAT IN GULF'S TIDAL BORE

For thousands of years the Colorado river dumped in excess of 100,000 acre feet of silt into the Gulf of California annually. This accumulation of silt eventually formed an earthen dam across the gulf and created the present below-sea-level basin of Imperial and Coachella valleys.

But Boulder dam was built, and now the major part of the silt load from the upper watershed is being deposited in Lake Mead. And a strange and alarming reversal of conditions has taken place at the mouth of the Colorado. Where once the river was pushing its delta farther and farther out into the gulf, the tidal bore is now sluicing its way back through the silt barrier and threatening again to inundate the Imperial basin.

This briefly, is the conclusion of Randolph Leigh, who devotes three chapters in his new book *FORGOTTEN WATERS* to his observations at the mouth of the Colorado during a cruising trip last year.

While the author does not present this condition as an immediate threat to Imperial valley, he suggests that it is a situation which should have close attention from the engineers charged with the responsibility for safeguarding of the 600,000 acres of highly productive farm lands lying below sea level in the area involved.

"There is no longer any question as to whether or not the gulf is going inland toward Imperial valley, now that it no longer has the old silt load of the Colorado river to block its progress," he writes. "The only question is as to the rate of progress, over a period of years, and in relation to the distance to be covered."

He estimates that the tidal limit has advanced northward into the delta 18 miles since the dam was completed, and states that the silt barrier which separates the gulf from the Imperial basin is but 28 feet above sea level at its low point.

The federal government, the writer points out, will be handicapped in undertaking protective measures, by the fact that the mouth of the Colorado river is in Mexico. As a solution for this angle of the problem, he suggests that United States should buy the peninsula of Lower California—an idea always popular with Americans, and thoroughly unpopular in Mexico.

While the author's conclusions regarding the security of Imperial valley are sensational, the greater part of *FORGOTTEN WATERS* is devoted to a very readable report on a leisurely cruise made by himself and his party up the west coast of Mexico and down the gulf coast of the peninsula.

They stopped at all the ports along the way, met many interesting natives, including the Seri Indians on Tiburon island, visited a number of the old missions, studied the pearl industry, fished in the gulf and delved deeply enough into the history of the gulf area to make the book informative as well as entertaining.

Residents of the Imperial basin, knowing the history and geography of the delta silt cone, will not be unduly alarmed by Randolph Leigh's conclusions. Nature spent thousands of years erecting the silt barrier that protects them from the gulf. It contains billions of tons of well-packed earth which probably will be there long after Lake Mead has filled with silt.

Published by J. B. Lippincott company. 318 pages. Illustrated with halftone engravings and sketches by author. Index. Bibliography. \$3.50.

—R H.

# —DESERT— BOOKSHELF

Listed below are a few of the books now available from the Desert Magazine's Book Department.

For a more complete list of Southwestern books available, write for price list.

## NEW MEXICO

**LANDMARKS OF NEW MEXICO.** Hewett and Mauzy. Concise, accurate descriptions of landmarks in a romantic, centuries-old land. Both guide and summary of archaeological, historical, geographical and ethnological lore. Many photos, map ..... **\$3.50**

**ACOMA.** Sedgwick. Story of the Indian civilization of New Mexico's Sky City. Based on diaries, notes of Bandler, Fewkes, Parsons and Hodge; legends and folk tales. Maps, photos ..... **\$2.50**

**INDIAN TRIBES OF THE SOUTHWEST.** Smith. Chapters on Acoma, Apache, Havasupai, Hualapai, Hopi, Navajo, Rio Grande Pueblo, Salt River, Taos and Zuni tribes. Travel information. Maps ..... **\$1.50**

**NEW MEXICO.** A Guide to the Colorful State. Complete handbook of American Guide series. 19 tours, profuse illustration, maps. 458 pages. **\$2.50**

**NEW MEXICO CARTOON GUIDE.** Pearce. Terse and entertaining. Humorous cartoons, geography, history, Indians, plant and animal life. Pocket map ..... **\$1.00**

## CACTI & WILDFLOWERS

**WHAT KINDA CACTUS IZZAT?** Reg Manning. Funniest and best of the famed cartoonist's books. .... **\$1.25**

**DESERT WILD FLOWERS.** Jaeger. New revised edition of most complete book published on desert flora. About 800 species described and illustrated. Includes discovery and naming of plants, bird and animal associations, Indian and pioneer uses, explanation of botanical names. 322 pages ..... **\$3.50**

**THE FANTASTIC CLAN.** Thornber and Bonker. Informal introduction to Southwest cacti. Includes notes on discovery and naming, uses, directions for growing. Profusely illustrated, color plates. Endmaps, glossary, index. .... **\$3.50**

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THE *Desert* MAGAZINE  
El Centro, California



By RANDALL HENDERSON

HERE'S always some fellow to take the joy out of things. For years we Imperial Valley folks battled with an unruly Colorado river that threatened one season to flood us out, and the next season to leave us dry and parched. Finally we persuaded congress to build Boulder dam and the All-American canal.

With these projects finished we were just settling down to enjoy our security and abundant water supply. And now Randolph Leigh in his new book, *Forgotten Waters*, tells us that since Boulder dam cut off the heavy burden of silt in the river there has been a reversal of conditions at the mouth of the Colorado, and the tidal bore from the Gulf of California has started cutting through the silt barrier that protects our below-sea-level valley from salt water inundation.

This week I had an airmail letter from a friend in New York who had read Leigh's story, and wrote to ask what we are going to do about this threatening disaster.

My answer was that with due respect to Randolph Leigh as a writer, there are still many things he has not learned about the hydraulics of the Colorado river. As a reporter, I have been tagging along with these lower Colorado river engineers for the last 30 years—and in the light of what I have learned from them I refuse to become excited about that tidal bore a hundred miles away.

If the gulf tide really wanted to cut a channel through that huge silt dike, I would be in favor of giving it all possible encouragement. As a stalwart member of the chamber of commerce I cannot think of a greater boon to this inland desert empire than a tidewater ship canal running right up to our back door. But I am afraid we will never get that canal unless we do as Houston, Texas, did—hire dredgers to do the job. And it isn't worth the cost.

\* \* \*

Many readers of *Desert Magazine* have seen those rusty old road signs along the route of the historic Butterfield stage trail in Southern California. They were erected nearly 50 years ago, and it is a fine testimonial to the efficiency of the man who installed them that they have withstood the elements and the vandals all these years.

The man who erected them was James A. Jasper, then desert supervisor for San Diego county. Mr. Jasper died at Glendale, California, February 10—at the end of a long and extremely useful life.

I feel a keen personal loss in the passing of Mr. Jasper. In my files are literally scores of entertaining and informative letters he has written since *Desert* was started. Knowing that he was

nearing the end of his days, he passed along to me a wealth of historical notes that have and will continue to be an authentic source of information for *Desert* readers.

\* \* \*

Uncle Sam—and that is you and me—is finding it necessary to impose more and more restrictions on the family automobile.

While hardship may result in some instances, I have a feeling there will also be many benefits, even aside from the winning of the war.

In saying that, I have a mental picture of those motor travelers who spend their vacations racing around from one national park to another, collecting a windshield full of stickers—and not much else.

We think those folks are very foolish—and yet you and I are guilty of the same form of insanity to a more or less extent. We all do a lot of useless motoring around—or at least we did when the only limitation was the cost of tires and gasoline.

It not only was a waste of time and expense, but we missed so much that is worthwhile—the pleasant acquaintanceships that can only be made when we have leisure to stop and talk with people, the lessons in Nature's way of life that can be learned only by close observation, the relaxation of body and soul that is never possible when our goal for the day's journey is 400 miles away.

Visitors never really learn the beauty and peace of the desert canyons and mesas and mountains until they get acquainted with them from the foot trails. There's a story in every shrub and pebble—a fascinating story—for those who will leave the car behind and take the time to observe.

And so the restriction on our cars may be a genuine benefit. May I suggest that during this emergency we "travel less and see more."

\* \* \*

And while we are on the subject of wartime restrictions, there is no need to become alarmed over those sugar rationings. At least not while the desert is producing abundant supplies of the healthiest sugar on earth—in the form of dates. Desert people in the old world thrive on sweetmeats without ever having heard about cane sugar or beet sugar.

Why all this advertising for the date growers? Because they deserve it. A man who has the faith and patience to plant a garden of fruit trees—knowing it will be 12 or 15 years before they will yield him a profitable harvest—deserves both the admiration and the patronage of his fellow-Americans.



## Desert Sunset

By OWEN SONNE  
Walla Walla, Washington

The dying sun in one last fitful throe  
Upturns a giant crucible that spills  
Its molten gold upon the western hills  
And gilds their ramparts with an amber glow.  
Now saffron, orange and yellow merge to flow  
In plunging torrents and in drifting rills—  
A restless, ceaseless surge that swirls and  
mills,  
Engulfing all the passive land below.

The treasures massed from earth's remotest ends  
Can't match the richness of this golden sea;  
Nor all the efforts finite man extends  
Produce the magic of its brilliancy.  
For here is grandeur that by far transcends  
The ultimate of human artistry.

### DUST DEVIL

By MINNIE TARR MILLER  
Winnemucca, Nevada

A timorous, newborn breeze,  
Haltingly flutters among the trees,  
Where the oak and pine abide,  
Thickly growing on the mountain side.  
Dancing slowly, gathering speed,  
As well as many a tumble weed.  
Winging its way to the plain,  
Tumbling and tossing, tumbling again.  
Joining kin in dervish dance,  
The moods of the desert to enhance.  
Now up, now down—round about,  
All rules of the dance they seem to flout.  
A roar—a rush—up the road  
To tip-toe over a horny toad.  
They twist, they bend, skip and soar,  
Then flatten out on the desert floor;  
Exhausted—return to dust—  
And rest—but while they live, dance they  
must.

### DESERT VOICES

By DR. CHAS. W. PATCH  
Las Vegas, Nevada

Sunset paints the lofty rimrocks—  
Pigmented flame that fades and dies;  
While each furtive desert creature  
Seeks cool shadow where it lies:

Ghostly murmurs mark hidden canyon;  
Sleepy whisper from purpling sage;  
Giant Joshuas nod stately answers  
As spring rainfall sets the stage:

Bright verbena spreads its carpet,  
Gorgeous splash on verdant screen;  
Ocotillo sprays scarlet streamers;  
Cholla cactus adds its sheen:

Mystery reigns o'er desolate grandeur;  
Muted flutes breathe eerie tunes;  
Singing sands play weird sonatas  
As vagrant wind stirs shifting dunes.

### SIXTY AND TEN

By DORA BELL LEE  
Humboldt, Arizona

Just a little old man around sixty and ten  
Who loved to enlarge on the places he'd been;  
The sights that he'd seen, the things that he'd  
done;  
The games that he'd played and the stakes that  
he'd won;  
The mines that he'd found and the men that  
he'd bossed;  
The cattle he'd run and the fortunes he'd lost.

So Bill sat on his heels and rolled up a cig;  
Though he'd horses to shoe and saddle to rig;  
Barbed wire to wrestle and fence posts to set;  
Riata to tallow and greasewood to get;  
Mavericks to round up and tally—but then  
Old Dad's still his hero at sixty and ten.



Photograph by George Barrett.

### TWILIGHT IN THE CHAPARRAL

By ESTHER BALDWIN YORK  
Hollywood, California

Softly to the quiet hills  
Evening comes. The day,  
Trailing clouds of red and gold,  
Slowly fades away.  
Dew-wet pungency of sage  
Permeates the air;  
Yuccas, stark against the sky,  
Climb the hilltop, where  
In the tufted mountain shrubs  
Rhythmed insects weave  
Webbs of sound. The first star glows.  
Oh, I can well believe  
That God comes down at evening time,  
As long ago; for He  
Is walking through the chaparral  
At dusk tonight—with me!

### FREEDOM OF THE DESERT

By GASPAR BELA DARUVARY  
Idyllwild, California

STAY in your dark sepulchral mansions,  
Pale city dwellers, pine and die!  
Shut out from Nature's fair expansions,  
Majesty of earth and sky.

THERE life repeats the same old story  
Of dark remorse, of dull ennui:  
In our native desert we glory,  
We here are strong, and proud and free.

OURS is the sunlight, heaven's spaces,  
Ours the mirage, enchanting sight:  
Ours the bright cloud the swift wind chases,  
Ours is the panting courser's flight.

OURS is the sand, like diamonds sparkling,  
Soft pillow when we sing to sleep,  
And ours, when the twilight is darkling,  
The stars that watch above us keep.

### CREED OF THE DESERT

By JUNE LEMERT PAXTON  
Yucca Valley, California

Some people take, but never give:  
Their Souls are seared with greed.  
But a packrat believes in fair exchange;  
There's no chiseling in his creed.

### REBUKE

By ALICE CLARK  
El Centro, California

I, who patiently persevere,  
Sat on a dune one day.

The desert, clothed in winter's tints  
Of dingy black and brown and grey,  
Lifted sandy cactus spires  
And silently began to pray.  
No piteous appeal was this  
To One whose mighty back was turned—  
Nor was there fear he would dismiss  
The plea as something yet un-earned.  
Hushed and still I waited there  
While desert things beseeched the skies.  
And then I saw a miracle!  
Before my newly-opened eyes  
Riotous color lived and breathed  
On yesterday's deserted waste—

And I, who patiently persevere  
Was humbled for impatient haste.

### CONTENTMENT

By EVANELLE MITCHELL  
St. George, Utah

I wouldn't trade my home, here, on the range,  
For all the promise of yon Paradise;  
Paradise, to me, would seem too strange,  
Without this toil, and endless sacrifice.

The range, its skies of blue; its grey expanse,  
Of hills and mountains, and the blazing sun,  
Let this be my life while I must live,  
And resting place, when life, at last, is done.

### WHEN WINTER WED SPRING

By ESTELLE THOMSON  
Los Angeles, California

The desert, to me,  
Was a creosote bush,  
A joshua tree,  
A coyote, a lizard,  
Red rock, grey sand—  
A lovely, lonely lonesome land . . .  
Till young Winter wed Spring—  
When it seemed every flower alive in the world  
Came blossoming.

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differs from any subdivision heretofore laid out anywhere in the West. In principle, this is not merely a subdivision. This property carries with it features for the benefit of mankind, and it is almost impossible to describe the numerous advantages that it possesses.

Desert Hot Springs was placed on the market in January, 1940. Since that time, about five hundred lots have been sold and about one hundred homes are erected.

THERE MUST BE A REASON! Sure, you can look the country over and you will not find another spot where you have access to a high grade of hot curative mineral water such as we have at Desert Hot Springs.

In addition to this water, there is no better desert climate on any desert. The elevation of about 1300 feet gives you an unobstructed view of the snow capped mountains surrounding this district. The valley below is an ever changing sight. The City of Palm Springs, 10½ miles distant, is in plain view. Palm Canyon and the Palms-to-Pines Highway are visible. Yet Desert Hot Springs is only 6 miles off U. S. Highway 99 and the main line of the Southern Pacific Railroad; and only 112 miles distant from Los Angeles.

YOU SHOULD INVESTIGATE this thriving community if you are seeking health, relaxation, outdoor sports and exercise. You can find everything you could wish for, even an opportunity to start in any line of business and grow with Desert Hot Springs.

The so-called Desert Cabin Sites are in reality residential lots, 50x130 feet each. Water mains are installed throughout the entire Tract. The water is furnished by the Desert Hot Springs Mutual Water Co., a California Corporation.

Electrical energy is installed throughout the Tract and furnished by the California Electric Power Co. The service is just as complete as in any Metropolitan area.

Where you can buy a lot, build a cabin to your own taste, for a little more than it would cost for an annual vacation. Where you have all modern conveniences—domestic water, electricity, two cafes, stores, lumber yard, weekly newspaper (The Desert Sentinel). (Motels and Trailer Courts in the making.)

SEE DESERT HOT SPRINGS! Judge for yourself. You owe this trip to yourself and your family.

When you come, bring your bathing suits!

Write for further information, maps and descriptive literature on Desert Hot Springs. Also Guest Cards!

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